

PSYCHOLOGICAL ABSTRACTS

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GENERAL

(incl. Statistics)

5623. Abderhalden, E., & Bürger, M. [Eds.] *Zeitschrift für Altersforschung: Organ für Erforschung der Physiologie und Pathologie der Erscheinungen der Alters.* (Journal for old age study; organ for the investigation of the physiology and pathology of the phenomena of aging.) Dresden, Leipzig: Theodor Steinkopff. Vol. 1, No. 1, July 1938. Irregular, 400 pp. per volume. RM 30.—R. R. Willoughby (Brown).

5624. [Anon.] Monsignor Pace, eminent educator and philosopher. *Cath. educ. Rev.*, 1938, 36, 326-336.—Appreciation of Pace's work in one of the journals he founded and edited. After study at Louvain, Leipzig, and Paris, he taught at the Catholic University of America from 1891 to 1935.—W. L. Wilkins (Springfield Junior College).

5625. [Anon.] *Le premier congrès international de psychiatrie infantile.* (The first international congress of child psychiatry.) *Z. Kinderpsychiat.*, 1938, 5, 19-26.—A further installment of the report on the congress, with abstracts of the papers read.—D. Shakow (Worcester State Hospital).

5626. Averill, L. A., & Kempf, F. C. *Psychology applied to nursing.* Philadelphia: Saunders, 1938. Pp. 471. \$2.50.—This textbook, written from the mental-hygiene point of view, presents a pragmatic psychology applicable to the problems met in the nursing profession. The 15 chapters are entitled: what it means to be an adult; instinct and the motivation of our behavior; habits, attitudes, and other determiners of behavior; conflict, adjustment, and maladjustment; the sense organs and their functions; the nervous system and its relation to our behavior; our muscles and glands; the learning process; some principles underlying learning; the individual learner; feeling and emotion in our lives; psychology of childhood; psychology of adolescence; the psychology of the family; the nurse as practical psychologist. Each chapter discusses its topics in direct relationship to the nurse and her patient, and to each is appended a list of thought problems and a list of specific problems in application. The book is indexed.—M. H. Erickson (Eloise Hospital).

5627. Bachelard, M. G. *La continuité et la multiplicité temporelles.* (Temporal continuity and multiplicity.) *Bull. Soc. franç. Phil.*, 1937, No. 2, 53-81.—A round-table discussion on Bachelard's theory as developed in his book, *La Dialectique de la Durée*, was engaged in by G. Bénézé, L. Brunschvigg, A. Lalande, G. Malitano, I. Meyerson, and D. Parodi. Various points of view were expressed

on the problem of the continuity and multiplicity of time.—G. Goldman (Sorbonne).

5628. Baumgarten, F. William Stern. *Z. Kinderpsychiat.*, 1938, 5, 31-32.—Obituary.—D. Shakow (Worcester State Hospital).

5629. Burkhardt, F. *Über die Verbindung des deduktiven und des statistischen Forschungsverfahrens mittels mathematischer Denkformen, dargestellt an der Statistik der vor- und nachgeburtlichen Sterblichkeit.* (Concerning the relation between deductive and statistical research methods and mathematical concepts, as exhibited in the statistics of pre- and postnatal mortality.) *Arch. math. Wirtsch. Soz. Forsch.*, 1936, 2, 149-163.—P. L. Krieger (Leipzig).

5630. Chamie, C. *Principes nouveaux de psychologie. Leur application à l'étude des systèmes de connaissances et de la personnalité.* (New principles in psychology; their application to the study of systems of cognition and of personality.) Paris: Hermann, 1937. Pp. 208. 30 fr.—After formulating two fundamental principles for advanced psychology (the principle of elimination of time and the principle of fixation of complexes), the author discusses the problems of personality and its formation; consciousness (the conscious, the unconscious, the sub-conscious, the impersonal self, and dreams); and the interaction between the personality and the soul and between the personality and systems of cognition.—G. Goldman (Sorbonne).

5631. D(allenbach), K. M. Professor Bentley retires from teaching. *Amer. J. Psychol.*, 1938, 51, 579.—Portrait.—D. E. Johannsen (Skidmore).

5632. Darrow, C. W. Continuous records of systolic and diastolic blood pressure. *Arch. Neurol. Psychiat.*, Chicago, 1937, 38, 365-370.—Description of apparatus.—D. G. Marquis (Yale).

5633. Dunlap, J. W. Recent advances in statistical theory and applications. *Amer. J. Psychol.*, 1938, 51, 558-571.—Evaluation of papers making statistical contributions, summarized under nine headings: correlation, analysis of variance, reliability, sampling theory, nomographs, statistics of matching, test construction, typology, and factor analysis.—D. E. Johannsen (Skidmore).

5634. Dunne, J. W. *The serial universe.* New York: Macmillan, 1938. Pp. 239. \$2.00.—The author discusses many of the problems of physics, philosophy, and psychology in the light of his theory called "serialism." The core of his argument is that time is an infinite regress, and that among its inevitable consequences is the assurance of personal immortality.—E. D. Hunt (Brown).

5635. Duplessis, G. L. A new type of absorption glass. *Amer. J. Optom.*, 1938, 15, 214-221.—Data concerning deleterious effects of light on the eye indicate that only excessive infra-red is likely to cause permanent injury. Desirable qualities in absorption lenses for ophthalmic use are high transmission in the visible spectrum with a minimum of color distortion and high absorption in the infra-red. Comparison of an unidentified sample with Calobar B shows the former to be superior in the first two respects without appreciable reduction of the infra-red absorption.—M. R. Stoll (Mass. Eye & Ear Infirmary).

5636. Faber, P., & Berman, L. Construction and use of a variable electrical contact maze. *Psychol. Rec.*, 1938, 2, 303-307.—A description of a human maze so designed "that geometric patterns of various degrees of meaningfulness and familiarity can be used as paths." Its special advantages are: (1) a high degree of patterning and stimulus adjustability, (2) ability to administer positive reward and punishment for each move, (3) the possibility of inserting a large variety of meaningful figures as paths. The apparatus fulfills the following criteria of a good maze: durability, rigidity, possibility of permanent graphic records, easily recognized goal, reversability for mirror images, parts of path numberable for recording, and hidden blinds to allow use of vision.—P. S. de Q. Cabot (Simmons).

5637. Fearing, F. John Edgar Coover: 1872-1938. *Amer. J. Psychol.*, 1938, 51, 579-582.—A summary of Coover's career and an appreciation of him as a man.—D. E. Johannsen (Skidmore).

5638. F(ernberger), S. W. Chapel Hill meeting of the Society of Experimental Psychologists. *Amer. J. Psychol.*, 1938, 51, 578.—D. E. Johannsen (Skidmore).

5639. Flint, M. Die Strukturen der Umwelterfassung, die von der neueren Psychologie als grundlegend angesehen werden. (The structures of environment which the newer psychology considers basic.) Greifswald: Adler, 1937. Pp. 32.—A characterization of the theories of thought from Wundt to the present time. None of them treats the whole problem. The theories of Selz and the Berlin school, with the exception of Lewin, seek to explain the objective structure of the environment. All the other theories work out the subjective side, although Jaensch tries to reconcile the two attitudes. The present phase of the problem may be stated as follows: By means of what sources does the individual transform the objective environment? The solution lies in an analysis of his total attitude.—M. Flint (Greifswald).

5640. Ford, A. An inexpensive stop-clock. *Amer. J. Psychol.*, 1938, 51, 557.—D. E. Johannsen (Skidmore).

5641. Garrett, H. E. Differentiable mental traits. *Psychol. Rec.*, 1938, 2, 259-298.—By the application of Thurstone's centroid method of factor analysis five studies dealing with the identification

and measurement of different mental traits are analyzed. The applicability of factor analysis to these studies is considered, followed by a discussion of factor methods and of criticisms of the value of factor analysis as a psychometric method. "Factor analysis has proved useful (1) as a technique in test construction, (2) in investigating the organization of abilities, and (3) as a first step in defining and measuring common personality traits." The isolation and validity of such primary traits as verbal ability, numerical ability, mental speed, and memory have been established.—P. S. de Q. Cabot (Simmons).

5642. Gehlen, A. Zur gegenwärtigen amerikanischen Psychologie. (Present-day American psychology.) *Bl. dtsh. Phil.*, 1938, 12, 94-103.—Gehlen gives a critical discussion of McDougall's *Energies of Men*, on the basis of which he expounds his own views. He considers that tracing back human behavior to a few instincts does not produce the slightest gain in real knowledge and may obscure the essential difference between the animal and human constitutions. He agrees, however, with McDougall's objection to typologies, and points out that what the author speaks of as methods of mental function (disposition, temperament, and character) might serve as suitable fundamentals for study. According to Gehlen, they are the hereditary bases of personality. McDougall's classification of the psychoses he considers rationalized and not valuable clinically. In the theory of the learning process, also, he deplors the lack of distinction between human and animal behavior.—J. Deussen (Haina).

5643. Gini, C. Die Messung der Ungleichheit zweier Verteilungen, angewendet auf die Untersuchung von qualitative Rassenmerkmalen. (The measurement of dissimilarity of two distributions applied to the investigation of qualitative racial characteristics.) *Arch. math. Wirtsch. Soz. Forsch.*, 1937, 3, 167-184.—P. L. Krieger (Leipzig).

5644. Guilford, J. P. The thirteenth annual meeting of the Midwestern Psychological Association. *Amer. J. Psychol.*, 1938, 51, 576-577.—D. E. Johannsen (Skidmore).

5645. Häberlin, P. Leitfaden der Psychologie. (Guiding principles of psychology.) Basel: Fraunfeld, Huber & Co., 1937. Pp. 70. Fr. 2.20.—In the sixth number of *Schweizerische Pädagogische Schriften*, Häberlin gives a short review of his investigations, which cover more than 30 years. The introduction takes up the position and function of psychology in relation to the other sciences. The analytical section treats of attitudes: the structure of objective activity, primitive interests, and ethical, esthetic, religious, and theoretical attitudes. The synthetic section is concerned with individuality and personality, conceived as two attitudes experienced in contradictory ways.—T. Kamm (Netztal, Switzerland).

5646. Heinlein, C. P. Some consequences of pseudo-mathematics and quasi-measurement in psychometrics, education, and the social sciences. *Proc. Fla. Acad. Sci.*, 1937, 1, 33-42.—The author

deplores the use of measuring devices and units and mathematical elaboration of these where there is no scientific justification for them. Examples of spurious uses cited are taken from mental testing and the quantitative handling of students' grades.—*F. A. Mote, Jr. (Brown)*.

5647. **Hertzman, M.** Two equations for the study of variability. *Amer. J. Psychol.*, 1938, 51, 571-574.—*D. E. Johannsen (Skidmore)*.

5648. **Husson, R.** Principes de métrologie psychologique. (Principles of psychological measurement.) Paris: Hermann, 1937. Pp. 82. 20 fr.—The author examines the different ways of treating psychological measurements by statistical methods. He discusses the problems raised by tests considered as instruments of psychotechnical measurement, shows how to standardize a single test or a battery of tests, and analyzes the diagnostic value of a test together with its accuracy and validity. Examples obtained from psychotechnical experience are given. Bibliography.—*G. Goldman (Sorbonne)*.

5649. **Jensen, K.** Electrical activity of the nervous system: I. Apparatus, recording techniques and field of study. *J. exp. Educ.*, 1938, 6, 233-281.—In addition to an outline of a research program and an historical account of the field of electro-encephalography, the author describes, with the aid of wiring diagrams and photographs, the apparatus and recording techniques used in the child development laboratory at the University of Wisconsin for the study of the electrical activity of the nervous system. Subsequent papers will deal with evaluative procedures and studies of specific problems. A bibliography of 88 titles is appended.—*H. W. Karn (Pittsburgh)*.

5650. **Katz, D.** Animals and men. New York: Longmans, Green, 1937. Pp. xi + 263. \$4.00.—The author aims to present a few special problems on animal psychology on which he has worked with students or treated in lectures, all of which contribute to comparative psychology. The first three chapters are introduction, relationship of animal psychology to other sciences, and the problem of method in animal psychology. The remaining five chapters deal with the problem of perception in animals, animal and space, needs, drives and instincts, social psychology of animals, and a psychological comparison of man and animal.—*F. A. Mote, Jr. (Brown)*.

5651. **Kern, H.** Das Werk Ludwig Klages'. (The work of Ludwig Klages.) *Z. Menschenk.*, 1938, 13, 169-170.—A short appreciation of Klages, who celebrated his 65th birthday on October 12, 1937.—*J. Deussen (Haina)*.

5652. **Kern, H.** Carl Gustav Carus als Forscher der Seele. (Carl Gustav Carus as an investigator of the soul.) *Z. Menschenk.*, 1938, 13, 170-182.—Kern discusses the theories of Carus, who represents the bridge between Herder and Goethe on the one side and the present on the other. He founded the so-called romantic theory of the unconscious, in contrast to Leibniz's concept of the subconscious. Leibniz and his followers from Herbart to Freud saw

a continuous gradation from the conscious grasp of reason to "differentials of consciousness" (repressed subconscious ideas), whereas Carus postulated the unconscious, which is one with the body and cosmos, and manifested only secondarily in man. Klages is the most modern exponent of this view, with his expression psychology and its application in graphology. Obviously, Carus' theory overcomes the difficulties of "insight psychology."—*J. Deussen (Haina)*.

5653. **Leconte, M.** Premier congrès international de psychiatrie infantile. Paris, 24 Juillet au 1er Août 1937. (The first international congress on child psychiatry, held in Paris, July 24-August 1, 1937.) Lille: S.I.L.I.C., 1937. Pp. 253.—The scientific part of the congress consisted of a number of reports and numerous communications and discussions. In this material three main divisions stand out: (1) general psychiatry, with a report by L. Cornil and M. Mosinger on the semeiological interest of tendino-conditional reflexes in child neuropsychiatry; (2) school psychiatry, with reports on the methods of education in relation to disorders in intelligence and character in children; and (3) judicial psychiatry, with reports on feeble-mindedness as a cause of juvenile delinquency (J. Belbey, G. Bermann, Pacheco e Silva, and L. Ribeiro). Accounts of the opening and closing sessions are also given, together with a list of full and associate members.—*G. Goldman (Sorbonne)*.

5654. **Ledermann, W.** Note on Professor Godfrey H. Thomson's article "The influence of univariate selection on factorial analysis of ability." *Brit. J. Psychol.*, 1938, 29, 69-73.—The author gives (1) a change in notation bringing all Thomson's results under one formula, (2) a matrix proof of Thomson's theorem that the rank is unchanged, and (3) a formula for new loadings.—*M. D. Vernon (Cambridge, England)*.

5655. **Lohde, R.** Die Anthropologie Pascals. Eine Strukturstudie zur Theorie der Menschenkenntnis. (The anthropology of Pascal. A structure study on the theory of knowledge of mankind.) Halle: Niemeyer, 1936. Pp. 83. RM. 2.80.—*P. L. Krieger (Leipzig)*.

5656. **Lombroso Ferrero, G.** L'éclosion d'une vie. (The flowering of a life.) Paris: Rieder, 1938. Pp. 302. 18 fr.—Madame Lombroso gives her recollections of the life of her son, Léo Ferrero, who died at the age of 30.—*G. Goldman (Sorbonne)*.

5657. **Matthews, B. H. C.** A simple universal amplifier. *J. Physiol.*, 1938, 93, 25-27P.—*M. A. Rubin (Worcester State Hospital)*.

5658. **Mohr, G. J.** Orthopsychiatry—fifteenth year. *Amer. J. Orthopsychiat.*, 1938, 8, 185-191.—This is a presidential address in which the organization's progress is reviewed in terms of discussions that have taken place at the annual meetings.—*S. W. Bijou (Delaware State Hospital)*.

5659. **Oberly, H. S.** The ninth meeting of the Eastern Psychological Association. *Amer. J. Psy-*

chol., 1938, 51, 577-578.—D. E. Johannsen (Skidmore).

5660. Otis, A. S. **Normal percentile chart.** Yonkers-on-Hudson: World Book, 1938. \$1.25 per package of 25.—A revision of the Universal Percentile Graph. A normal distribution is represented by a straight line, which aids curve fitting and the determination of scores at the lower and upper extremes of the curve. Sigma values and the correspondence between scores in two tests can be read directly from the "percentile curve" of the distribution.—M. Keller (Butler Hospital).

5661. Otis, A. S. & Durost, W. N. **Statistical methods applied to test scores.** Yonkers-on-Hudson: World Book, 1938. Pp. 32. \$0.15.—A brief outline of elementary statistical procedures.—M. Keller (Butler Hospital).

5662. Pollnow, H. **Réflexions sur les fondements de la psychologie chez Malebranche.** (Reflections on the fundamentals of Malebranche's psychology.) *Rev. phil.*, 1938, 63, 194-214.—Malebranche's psychology is not, as certain writers claim, a simple rationalization of a mystic attitude; although it goes beyond the empirical domain, it makes use of internal experience as the starting point of our awareness of the soul. A detailed analysis of Malebranche's concepts on differential psychology and on the role of heredity and environment brings out the fact that his concepts are strikingly appropriate for consideration in relation to present-day psychology and psychopathology.—G. Goldman (Sorbonne).

5663. Rashevsky, N. **Mathematical biophysics: physicomathematical foundations of biology.** Chicago: Univ. Chicago Press, 1938. Pp. xviii + 340. \$4.00.—This book is an outline of a mathematical biology, theoretically analogous in its aims to a mathematical physics. It considers a range of subject matter extending from the mathematical biophysics of cells to a theory of central nervous action. There is an appendix on the biophysics of cell division. Parts II and III are of especial interest to psychologists. Part II deals with the problem of excitation and conduction in peripheral nerve, and Part III with the central nervous system. In Part III are presented such topics of psychological interest as *Mathematical biophysics of conditioned reflexes*, *Discrimination of relations*, *Mathematical biophysics of the Gestalt problem*, *Delayed reflexes and error elimination*, *Learning and thinking*. The book ends with a statement of faith in the possibility of a mathematical systematization of the social sciences.—C. H. Graham (Brown).

5664. Reid, A. C. **Elements of psychology: an introduction.** New York: Prentice-Hall, 1938. Pp. xix + 409. \$2.50.—"Psychology is the study of mind." Its subject matter therefore consists "of mental phenomena—sensations, images, affection, perceptions, reason, and other modes of psychological processes." Mind is the "sum-total of an individual's states of consciousness as experienced during his lifetime." Mental elements are said to

be sensation, image, and affection, and they have indispensable attributes of quality, intensity, extensity, protensity, and attensity. Vision, audition, taste, smell, touch, intensity of sensation, image, affection, association and memory, attention, emotion, and action are chapter headings, and two chapters are devoted to perception: (1) visual; (2) auditory and tactual. A bibliography and index are included.—C. N. Cofer (Brown).

5665. Ruckmick, C. A. **The truth about the lie detector.** *J. appl. Psychol.*, 1938, 22, 50-58.—This is one of a series of investigations on the detection of lying with the galvanometric technique. The procedure made use of a series of cards on each of which was printed a word. The subject selected one and responded "No" to all questions as to which word the card contained. A score of 83% correct judgments was achieved. The author points out, however, that the method is dangerous unless used by a competent person.—S. Roslow (Psychological Corporation).

5666. Scates, D. E., & Fauntleroy, V. **The effect of weights on certain index numbers.** *J. exp. Educ.*, 1938, 6, 282-306.—This study deals with the application of various sets of weights to the different traits or factors which have been used in four published studies, three of which were ratings of school systems and the fourth on cost of living. The results and analyses lead the authors to conclude that an unrestricted generalization that the weighting of index numbers is important, or unimportant, is not justifiable. Effectiveness of weighting appears to depend upon the following factors: (1) the force of the set of weights; (2) the uniqueness of a particular series; (3) the shape of a series (as compared with the shapes of the other series, when plotted on some common scale); or the linearity and general homogeneity in intercorrelations; (4) the number of series entering into the composite, or index number; (5) whether the weights are constant or variable.—H. W. Karn (Pittsburgh).

5667. Seashore, R. H. **The pyramid puzzle: a useful device in studying thought.** *Amer. J. Psychol.*, 1938, 51, 549-557.—Description of a simple puzzle, usable as an apparatus for studying learning (either trial-and-error or insight) or reasoning.—D. E. Johannsen (Skidmore).

5668. Sivadjan, J. **Le temps. Etude philosophique, physiologique, et psychologique.** (Time: a philosophical, physiological, and psychological study.) Paris: Hermann, 1938. Pp. 427. 85 fr.—The author gives a synthetic study of the notion of time as found in philosophy, physiology, and psychology, going from antiquity to the present day. In conclusion he develops his own theory of time and space. He discusses the progress of thought from the simple concepts of the early Greek atomists through scholasticism, nativism, empiricism, the Bergsonian concept of duration, and the modern physiological basic ideas of the concept of time. His theory is that time and space are two phases of the same entity, the interval, which springs from the

discontinuous structure of the universe. Bibliographical footnotes.—G. Goldman (Sorbonne).

5669. Spiegel, E. A. [Ed.] *Confinia neurologica*. (Borders of neurology.) Basel, Leipzig, Philadelphia: Medizinischer Verlag von S. Karger. Vol. 1, No. 1, 1938. Bi-monthly. \$7.50; Swiss fr. 30.—R. R. Willoughby (Brown).

5670. Steiner, O. *Der mittlere Fehler und seine graphische Darstellung*. (The average error and its graphic representation.) *Arch. math. Wirtsch. Soz. Forsch.*, 1937, 3, 110-134.—P. L. Krieger (Leipzig).

5671. Stolte, H. A. *Cellularbiologie und Ganzheitsbiologie, Biostatik und Biodynamik*. (Biology of cells and biology of the total organism, biostatistics and biodynamics.) *Z. ges. Naturw.*, 1937, 3, 113-128.—P. L. Krieger (Leipzig).

5672. Stroud, J. B. *Introduction to general psychology*. New York: Prentice-Hall, 1938. Pp. 681. \$3.25.—This text makes some use of anthropological and biological material, and "in the main, it follows behavioristic traditions in its fundamental concepts, although subjective material is included in the factual data." The chapters are as follows: assumptions and methods; some principles of behavior; instinct and culture; personality; pleasantness and unpleasantness; emotion; nervous systems; nervous and motor phenomena; sensory processes; perceptual processes; symbolical processes; learning processes; memory; work, fatigue, and sleep; and intelligence. Portraits of Boring, Thurstone, McDougall, Cannon, Herrick, Lashley, Pillsbury, Carr, Watson, Thorndike, Ebbinghaus, and Terman are reproduced.—W. S. Hunter (Brown).

5673. Watson, D. L. *On the rôle of insight in the study of mankind*. *Psychoanal. Rev.*, 1938, 25, 358-371.—The new physics brings forth a lesson in the fields of psychology and sociology indicating that the scientist cannot avoid injecting something of himself into his work. In the physical sciences this unavoidable contribution may perhaps be kept within bounds. In the social sciences, because of the higher organization of significant facts, and because observation of critical events can seldom be made mechanically or impersonally, this antisepsis is impossible. The first task of the student of psychology and sociology must be to acquire and cultivate insight to enable him to seize the significant aspect of a human situation. The way to perfect such power is to experience life directly in many different social settings. This results in "ripeness." Ripeness must be supplemented by a flexible readiness to cope with the unexpected and unique. It is doubtful whether the acquisitions of psychosocial insight of one generation can be validly handed on, like Newton's laws, from one generation to another.—L. S. Selling (Recorder's Court, Detroit).

5674. Wert, J. E. *Educational statistics*. New York: McGraw-Hill, 1938. Pp. 305 + xii. \$3.25.—The purpose of this book is to assist research workers in education, school administrators, teachers, and

graduate students by presenting information which may aid the development of an attitude of critical appraisal toward investigations reported in educational literature; it is especially designed for "those who believe that the noncomputational outcomes of statistical instruction are at least as important in the education of most school workers as are the technical skills of statistical manipulation." An appendix of 39 pages includes tables of squares, square roots, reciprocals, logarithms, ordinates and areas of the normal curve, sigma scores of percentages and $\frac{pq}{z}$.

Interpretation exercises included at the end of each of 13 chapters provide practice material.—P. S. de Q. Cabot (Simmons).

5675. Williams, G. *Basic concepts in the theory of probability*. *Phil. Rev.*, N. Y., 1938, 47, 414-419.—The word "probability" like "truth," has a traditional meaning which we should not discard. Several meanings can be defined within the traditional limits, notably recurrence probability and evidential probability, or real probability. Truth is not any degree of probability, conviction, or belief. Every proposition is either true or false. Nothing intervenes between these. Belief is the psychological phenomenon of judgment. There are three points on this scale, conviction, qualitative doubt, and rejection. Probability is the strength of the evidence. On the probability scale there are an infinite number of points. If the evidence is not present to someone's mind, there is no probability. A true proposition may be 99% probable to one man, 50% to another, and 1% to another, depending on the differing amounts and kinds of evidence they have. Conviction is our appreciation of the amount of evidence. We may misinterpret the evidence and have a stronger or weaker conviction than is warranted. This does not change the probability. The degree of negative conviction ideally agreeing with the negative probability is properly called quantitative doubt. This does not preclude either strong conviction or definite belief.—M. F. Martin (W. Springfield, Mass.).

[See also abstracts 5745, 5770, 5791, 6095.]

NERVOUS SYSTEM

5676. Alexander, L. *The neurone as studied by micro-incineration*. *Brain*, 1938, 61, 57.—Ganglion cells contain rich deposits of heat-resistant mineral ashes in their nucleolus and in the Nissl bodies of their cytoplasm and dendrites. The intracellular neurofibrillae, the axon hillock, and the main body of the axis cylinder are free from heat-resistant mineral ashes. The lipid part of the myelin sheath is free from mineral ashes. The myelo-axostroma contains a small amount of heat-resistant mineral ash. The granular cells of the cerebral cortex and the ganglion cells from the allocortical areas are richer in mineral ash residue than morphologically similar ganglion cells from isocortical areas or from the basal ganglia. The content of heat-resistant

mineral ash in the same neurone is relatively greater during ontogenetic development than after differentiation. There seems to be evidence of a positive correlation of these heat-resistant mineral ashes with growth and with metabolic activity.—*W. Marshall* (Appleton Clinic, Wis.).

5677. **Allen, W. F.** Relationship of the conditioned olfactory-foreleg response to the motor centers of the brain. *Amer. J. Physiol.*, 1938, 121, 657-668.—The elimination of efferent impulses from the hippocampi by transection of the fornices did not delay the conditioned response or interfere with transfer to the opposite foreleg. Elimination of the excitable motor cortex (an area bounded by the precruciate, longitudinal, ansate, and coronal sulci, and a short distance into the cephalic end of the coronal sulcus) prevented formation of conditioned responses and abolished already established ones. A generalized sort of conditioned behavior similar to that of Culler's decorticate dog might remain, however. It is concluded that the excitable area of the sigmoid cortex is essential for the establishment of specific olfactory conditioned responses.—*T. W. Forbes* (Yale Bureau for Traffic Research).

5678. **Beecher, H. K., McDonough, F. K., & Forbes, A.** Effects of blood pressure changes on cortical potentials during anesthesia. *J. Neurophysiol.*, 1938, 1, 324-331.—Special concentric electrodes were used to record potentials from the sensory cortex of cats under ether and under pentobarbital anesthesia. A marked lowering of blood pressure during a constant anesthesia level resulted in changes of cortical potentials similar to those caused by increasing the depth of anesthesia.—*M. A. Rubin* (Worcester State Hospital).

5679. **Bolton, B., Williams, D. J., & Carmichael, E. A.** Sympathetic ganglionic responses in man. *Brain*, 1937, 60, 39-43.—Plethysmographic studies of vasomotor reflexes in a patient with intact lumbar sympathetic ganglia but with the preganglionic fibers destroyed gave no indication of the presence of ganglionic reflex responses. This is in contradiction to the results of Schwartz, who obtained psychogalvanic responses in cats after isolation of the ganglia.—*D. G. Marquis* (Yale).

5680. **Clark, S. L., & Ward, J. W.** Electrical stimulation of the cortex cerebri of cats: responses elicitable in chronic experiments through implanted electrodes. *Arch. Neurol. Psychiat., Chicago*, 1937, 38, 927-943.—The effects of cortical stimulation were studied over long periods by a method of permanently implanted electrodes which permits recovery from anesthesia and the effects of operation. The experiments demonstrated that the same response can be elicited from the same cortical point from day to day and argue against any marked instability of cortical points except under the temporary influence of transient physiological states.—*D. G. Marquis* (Yale).

5681. **Cook, L. C., & Walter, W. G.** The electroencephalogram in convulsions induced by cardiozol. *J. Neurol. Psychiat.*, 1938, 1, 180-186.—Electro-

encephalograms were taken from patients undergoing treatment for schizophrenia by cardiozol injections. When an injection failed to induce a fit an abnormal discharge was found in all areas of the cortex. This lasted for some time and corresponded to a period of mental confusion and malaise. When the injection was followed by convulsions, the diffuse discharge was interrupted by a focal outburst coincident with the onset of tonic spasms. This focus was always in the region of the superior frontal gyrus. When the fit was over the electro-encephalogram soon resumed its normal character.—*W. J. Brogden* (Johns Hopkins).

5682. **Darrow, C. W.** Neural mechanisms controlling the palmar galvanic skin reflex and palmar sweating: a consideration of available literature. *Arch. Neurol. Psychiat., Chicago*, 1937, 37, 641-663.—Palmar sweating and the associated galvanic skin reflex are mediated by sympathetic nerves, although in many respects the function is similar to parasympathetic mechanisms. Central control of sweat secretion involves the dorsal vagal nucleus, the anterior portion of the hypothalamus and the prechiasmatal region, and the premotor region of the cortex. Possible applications to the study of certain conditions of anxiety and depression are pointed out.—*D. G. Marquis* (Yale).

5683. **Dusser de Barenne, J. G.** Simultane Bahnung und Auslöschung in der "motorischen" Hirnrinde. (Simultaneous facilitation and extinction in the "motor" cortex.) *Confinia neurol.*, 1938, 1, 2-5.—It is shown that primary facilitation and extinction can occur simultaneously in the motor cortex of the monkey.—*J. G. Dusser de Barenne* (Yale).

5684. **Dusser de Barenne, J. G., & McCulloch, W. S.** Sensorimotor cortex, nucleus caudatus and thalamus opticus. *J. Neurophysiol.*, 1938, 1, 364-377.—By combining electrical recording, local strychninization, and operative lesions of the sensorimotor cortex in anesthetized monkeys (*Macaca mulatta*), the following one-way circuit is found: the leg- and arm-portions of area 4-s (the area frontal and immediately adjacent to area 4) influence the activity of the caudate nucleus, which, in turn, influences the activity of the thalamus; the thalamus then influences the activity of the leg- and arm-portions of area 4.—*M. A. Rubin* (Worcester State Hospital).

5685. **Fessard, A.** Recherches sur l'activité rythmique des nerfs isolés. (Studies on the rhythmic activity of isolated nerves.) Paris: Hermann, 1936. Pp. 161.—The results of his many studies have convinced the author that the rhythmicity of an isolated nerve unit is a general form of activity even in systems which normally function aperiodically. He seeks once more to verify this proposition experimentally, using electrical, physical, and chemical stimulation. Two different fields are studied: (1) myelinated nerves in vertebrates (toads and frogs), systems which are considered to be essentially aperiodic, and (2) amyelinated nerve structures (the ganglia of insects and nerves of crustaceans), systems

which are more conducive to rhythmical activity. His results demonstrate an analogy between the elementary pulsations of these different structures, but show that the study of nerve rhythms serves rather to bring out discriminations between different modes of rhythmic activation than to offer comparisons between them. Extensive bibliography.—G. Goldman (Sorbonne).

5686. Girden, E. Cerebral mechanisms in auditory localization. *Proc. Soc. exp. Biol., N. Y.*, 1938, 38, 766-767.—Dogs were conditioned to flex the forepaw at the sound of a buzzer on the right side, and to inhibit response to sound on the left. After transection of the corpus callosum and removal of one temporal lobe, the habit persisted. When both temporal lobes were extirpated at one time, the habit disappeared. If, however, the two auditory areas were removed in successive stages (one month apart), the dog showed flexion to the auditory stimulus regardless of its locus in space.—H. Peak (Randolph-Macon).

5687. Goodwin, J. E., Lloyd, D. P. C., & Hall, G. E. Action of pentamethylenetetrazol (metrazol) and insulin on brain potentials of the rabbit. *Proc. Soc. exp. Biol., N. Y.*, 1938, 38, 897-899.—Records are shown of brain potentials recorded from paired leads on the area striata of a rabbit which had been given convulsive doses of metrazol along with curare to obviate artifacts from gross movements. Four phases are described, none correlated with motor phenomena because of the curare. Records from bilateral leads on precentral and striate regions after convulsive doses of insulin show progressive increase of slow-wave activity during the preconvulsive stage. Following convulsions the slow random waves continue for some time, and are interfered with by glucose. This wave is also present following metrazol and may be correlated with reduced cerebral blood flow and coma.—H. Peak (Randolph-Macon).

5688. Graichen, E. Das Zentralnervensystem von *Nepa cinerea* mit Einschluss des sympathischen Nervensystems. (The central nervous system of the water-scorpion, including the sympathetic nervous system.) *Zool. Jb., 2. Abt.*, 1936, 61, 195.—P. L. Krieger (Leipzig).

5689. Granit, R., & Therman, P. O. The "slow potentials" associated with excitation and inhibition in the excised eye. *J. Physiol.*, 1938, 93, 9-11P.—The components P II and P III are genuine slow retinal potentials which spread electrotonically.—M. A. Rubin (Worcester State Hospital).

5690. Hügquist, G. Fasernanalyse der vorderen Spinalwurzeln des *Macacus rhesus*. (Analysis of the tracts of the anterior roots of the spinal cord of the macaque.) *Z. mikr.-anat. Forsch.*, 1937, 42, 33-69.—P. L. Krieger (Leipzig).

5691. Harrison, F., Magoun, H. W., & Ranson, S. W. Some determinations of thresholds to stimulation with the faradic and direct current in the brain stem. *Amer. J. Physiol.*, 1938, 121, 708-718.—Faradic, rectangular D.C., and "dampened" D.C.

similar to that recommended by Hess were compared. No advantage was found for the D.C. or "dampened" D.C., and the risk of tissue destruction by polarization would contra-indicate it. Average thresholds are given for various cytoarchitectonic areas. The dose of nembutal or urethane used was critical, in some cases causing depression and in others no effect. In stimulating the motor cortex (lateral part of the anterior sigmoid gyrus) forelimb twitches with relaxation between were obtained up to 8 per second; between 8 and 16 relaxation was incomplete, and above 16 tonic flexion or stepping at 1 to 4 per second was the result.—T. W. Forbes (Yale Bureau for Traffic Research).

5692. Hoyos, J. Zur Frage der sogenannten "Wechselstromnarkose" mit technischem Wechselstrom. (On the question of so-called alternating current narcosis.) *Z. Biol.*, 1937, 98, 325-336.—During the passage of weak alternating current through the central nervous system in frogs, all that is brought about is an increase of central excitability. This usually outlasts the period of passage of the current. With a strong current there persists a response to single stimuli. This is not due, however, to central injuries, but to the existing maximal excitation, which can be increased no further through an additional stimulus. With alternating current there is no electrical narcosis like that of a decreasing direct current. The inability to respond, which occurs temporarily after passage of the current, may be understood only as an after-effect of exhaustion or reversible damaging of the central nervous system, and should be called merely "electrical stunning."—P. L. Krieger (Leipzig).

5693. Huzella, T. Experimentelle Untersuchungen über Beziehungen der Nervelemente. (Experimental study of relationships between neural elements.) *Anat. Anz.*, 1938, 85 (suppl.), 91-100.—By means of cinema technique the author observed cultures of brain, cord, and spinal ganglia in chicken embryos and rats. The elements of the nervous system appear to be loosely related and severally replaceable. Their connections remain for the most part transitory.—P. L. Krieger (Leipzig).

5694. Kabat, H., & Dennis, C. Decerebration in the dog by complete temporary anemia of the brain. *Proc. Soc. exp. Biol., N. Y.*, 1938, 38, 864-865.—Decerebration was accomplished by occluding the carotid and cervical branches of the subclavians and the spinal blood vessels. In a preliminary operation both vertebral arteries were ligated. After 1-2 weeks the dog was given atropin sulfate to prevent vagal cardiac inhibition. A large blood pressure cuff, wrapped around the neck and inflated to 300 mm. Hg, produced anemia. Artificial respiration was begun as soon as respiration stopped. Pressure was released after 15-20 min. The decerebration produced a comatose condition, inability to stand, moderate extensor tonus increase, and impaired temperature regulation. It is reported that there was no evidence of sensations of smell, vision, taste, hearing, or pain. Brain-stem reflexes were present.

An animal has been kept alive for 9 days after 19 min. of anemia.—*H. Peak* (Randolph-Macon).

5695. Kornmüller, A. E., & Schaefer, J. A. Zur Elektrodenanordnung bei den Registrierungen bioelektrischer Potentialschwankungen der Hirnrinde. (Electrode arrangement in recording bioelectric potential variations from the cortex.) *J. Neurophysiol.*, 1938, 1, 287-300.—Simultaneous records with uni- and bipolar leads directly from the cerebral cortex of the rabbit show that potentials from unipolar leads are independent of the position of the reference electrode; and the tissue between the reference and active leads does not contribute to the potential pattern. The potential pattern with bipolar leads is the exact difference of the two unipolar records obtained from the same active leads.—*M. A. Rubin* (Worcester State Hospital).

5696. Larrabee, M. G., & Bronk, D. W. Persistent discharge from sympathetic ganglion cells following preganglionic stimulation. *Proc. Soc. exp. Biol., N. Y.*, 1938, 38, 921-922.—All nerves leading to and from the stellate ganglion of the cat were sectioned and the preganglionic trunk then stimulated while impulses were recorded from postganglionic inferior cardiac nerve. At frequencies above 40 per sec., the impulses recorded are asynchronous, and at the end of stimulation activity does not cease abruptly but declines gradually for 0.2-0.5 sec. This is followed by a period of no discharge. After this the discharge begins again and continues for 15 sec. or more.—*H. Peak* (Randolph-Macon).

5697. Lashley, K. S. Functional determinants of cerebral localization. *Arch. Neurol. Psychiat.*, Chicago, 1937, 38, 371-387.—A physiological point of view on cerebral localization is presented in contrast with the mixed metaphysics of the current mentalistic interpretations of the localization of sensation, volition, memory, etc. Various lines of evidence indicate that the spatial distribution of excitations within a nerve center may form the basis for several types of integration, such as the regulation of intensity of discharge, the establishment of fields of force to determine spatial orientation, and the control of the serial timing of activities. Each of these functions implies a different mechanism of organization, and consequently a spatial separation of the fields in which the different processes operate. Experimental and clinical data indicate that the dissociation of functions resulting from cerebral lesions is in harmony with the assumption that cerebral localization is determined by the separation of such incompatible mechanisms.—*D. G. Marquis* (Yale).

5698. Lemere, F. Berger's a rhythm in organic lesions of the brain. *Brain*, 1937, 60, 118-125.—Electro-encephalograms were obtained from the two sides of the head in 15 normal subjects and in 60 patients with intracranial lesions. Unilateral localized lesions of the frontal, parietal, or temporal lobes were associated with a slightly stronger rhythm on the affected side. Fairly complete lesions

of the occipital lobe resulted in very poor or absent rhythm on that side, while lesions of the optic radiations were associated with strong rhythm on the affected side, which was present even with the eyes open.—*D. G. Marquis* (Yale).

5699. Libet, B., & Gerard, R. W. Automaticity of central neurones after nicotine block of synapses. *Proc. Soc. exp. Biol., N. Y.*, 1938, 38, 886-888.—Discovery of rhythmic electrical potentials of central neurones in the absence of deliberate sensory stimulation needs checking for the possibility of impulses from closed circuits of internuncial neurones. In the present experiment, when synaptic conduction is blocked by soaking the preparation in .5% nicotine for one half hour, the rhythmic slow potential waves from frog's isolated olfactory bulb are increased rather than abolished. Phrenic nerves are also shown to discharge impulses when afferent connections are blocked. It is concluded that rhythmic activity originates in single neurones. Facts are offered in support of the assumption that nicotine actually does block central synaptic connections.—*H. Peak* (Randolph-Macon).

5700. Lilienthal, J. L., Jr., & Otenasek, F. J. Decorticate polypneic panting in the cat. *Johns Hopk. Hosp. Bull.*, 1937, 61, 101-124.—In the acutely decorticate cat there occurs a respiratory phenomenon characterized by rapid rate, decreased amplitude, open mouth, and associated rhythmic movements of the tongue and labial commissures. The neural centers requisite for polypneic panting were shown to lie within the caudo-dorsal portion of the diencephalon. The phenomenon is distinct from sham rage by virtue of its physiological dissociation and its separate anatomical center.—*D. G. Marquis* (Yale).

5701. Lindsley, D. B., & Sassaman, W. H. Autonomic activity and brain potentials associated with "voluntary" control of the pilomotor (mm. arrectores pilorum). *J. Neurophysiol.*, 1938, 1, 342-349.—In an individual who had "voluntary" control of his pilomotor muscles, erection of body hairs was accompanied by increases in heart rate, rate and depth of respiration, electrical potentials of skin regions rich in sweat glands, and blood pressure, and by dilatation of the pupils. These changes indicate a generalized sympathetic discharge. Potential changes in the premotor cortex preceded and seemed to be associated with the peripheral autonomic changes. This is taken as evidence of the representation of the autonomic nervous system in the premotor area.—*M. A. Rubin* (Worcester State Hospital).

5702. Maaske, C. A., Boyd, T. E., & Brosnan, J. J. Inhibition and impulse summation at the mammalian neuromuscular junction. *J. Neurophysiol.*, 1938, 1, 332-341.—The effects of magnesium, curare, eserine and acetylcholine on facilitation and inhibition at the neuromuscular junction are described and discussed in relation to the theory of neuromuscular transmission.—*M. A. Rubin* (Worcester State Hospital).

5703. MacIntosh, F. C. Acetylcholine and synaptic transmission in a ganglion. *J. Physiol.*, 1938, 93, 1P.—M. A. Rubin (Worcester State Hospital).

5704. Marinesco, G., Sager, O., & Kreindler, A. L'électroencéphalogramme dans certains états pathologiques. (The electroencephalogram in certain pathological cases.) *Pr. méd.*, 1938, No. 34, 650-654.—A description is given of a series of pathological cases with modification in the amplitude of the electroencephalogram (epilepsy and tetany) or in both amplitude and frequency (aphasia, cerebral tumors, etc.). In general, a diminution in frequency is accompanied by a diminution in amplitude (aphasia), or there may be an increase in amplitude in certain cerebral tumors (coma). In certain exceptional cases, however, only the frequency is diminished.—G. Goldman (Sorbonne).

5705. Marquis, D. G., & Hilgard, E. R. Conditioned responses to light in monkeys after removal of the occipital lobes. *Brain*, 1937, 60, 1-12.—Although the monkey appears to be totally blind after bilateral removal of the occipital lobes, a conditioned eyelid response to a light stimulus can be established. The rate of formation of the response, as well as its form, amplitude, and frequency, are not significantly different from the normal. Of three monkeys trained before removal of the occipital lobes, one retained the response after operation and the other two re-acquired the response with retraining.—D. G. Marquis (Yale).

5706. Masserman, J. H., & Haertig, E. W. The influence of hypothalamic stimulation on intestinal activity. *J. Neurophysiol.*, 1938, 1, 350-356.—Stimulation of the anterior portion of the hypothalamus, the dorsal portion of the supramammillary decussation, and the mammillary bodies with currents too weak to induce emotional mimetic responses in anesthetized cats caused marked intestinal activity. Strong electrical stimulation anywhere in the hypothalamus or weak stimuli in the ventral portion of the supramammillary decussation and the suprachiasmatic region resulted in inhibition of intestinal motility; the degree of intestinal inhibition corresponded to the intensity of other autonomic and emotional mimetic responses evoked by the stimulus. Injection of large amounts of strychnine into the diencephalon diminished intestinal activity. Electrical stimulation of the hypothalamus injected with strychnine caused a degree of intestinal inhibition which corresponded to the degree of facilitation of the accompanying emotional mimetic responses of the animal.—M. A. Rubin (Worcester State Hospital).

5707. Matschulan, G. Jahresrhythmen in Entwicklung und Verlauf von Morphingewöhnung und -entwöhnung. (Annual rhythms in the development and course of habituation to morphine and of recovery from the habit.) *Arch. exp. Path. Pharmacol.*, 1937, 186, 113-117.—The writer shows that with injections of morphine and subsequent faradic stimulation of guinea pigs the excitability of the sympathetic nervous system increases in spring and

that of the parasympathetic decreases. In autumn the relationship is reversed. There are two phases in the effect of morphine; one is enervating (parasympathetic excitation), the other is stimulating (sympathetic excitation).—P. L. Krieger (Leipzig).

5708. Nachmansohn, D. Transmission of nerve impulses in the central nervous system. *J. Physiol.*, 1938, 93, 2-3P.—Evidence is offered which satisfies the requirement that acetylcholine, if it is to have a transmitting function, should be removed during the refractory period of nerve cells.—M. A. Rubin (Worcester State Hospital).

5709. Nicholson, H. C., & Sobin, S. Respiratory effects from the passage of polarizing currents through the medulla oblongata. *Proc. Soc. exp. Biol.*, N. Y., 1938, 38, 904-906.—With one electrode on the floor of the 4th ventricle in the calamus scriptorius and the other in the mouth or under the skin of the occiput, a polarizing current of a few milliamperes resulted in profound respiratory changes in dogs. Two groups of results were secured: (1) decrease in amplitude of respiration proportional to the current strength and independent of its direction, indicating depression of the entire respiratory center; (2) increase in duration of inspiration, suggesting depression of the expiratory portion of the respiratory mechanism. Where recovery did not occur tissue destruction was frequently revealed on examination.—H. Peak (Randolph-Macon).

5710. Norman, R. F. Some observations on the depth and nerve-cell content of the super-granular cortex in normal and mentally defective persons. *J. Neurol. Psychiat.*, 1938, 1, 198-210.—No significant difference in mean depth of cortex was demonstrated between 30 normal and 30 mentally defective brains. Microscopic fields poor in nerve cells were found more often in ament than in normal cortices, but the general effect of such cases was not sufficiently marked to reduce the average nerve-cell count below the normal level. The distribution of neuron cytons throughout the middle portion of the super-granular cortex in defectives was significantly less uniform than in normals. The average nerve-cell content of sections was significantly more variable in the defective group than in the normal. This investigation supports the view that amentia is commonly associated with structural abnormalities of those parts of the neopallium which have been most recently acquired.—W. J. Brogden (Johns Hopkins).

5711. Penfield, W., & Boldrey, E. Somatic motor and sensory representation in the cerebral cortex of man as studied by electrical stimulation. *Brain*, 1937, 60, 389-443.—Summary and complete analysis of the results of electrical stimulation of various regions of the cortex in 126 patients operated under local anesthesia.—D. G. Marquis (Yale).

5712. Richter, C. P., & Levine, M. Sympathectomy in man: its effect on the electrical resistance of the skin. *Arch. Neurol. Psychiat.*, Chicago, 1937, 38, 756-760.—Cervical sympathectomy (removal of the stellate and first thoracic

ganglia) in 10 patients consistently produced a large increase in the electrical resistance of the skin of the palms of the hands, and a smaller and less consistent increase in that of the backs of the hands. The method is recommended as useful for the study of the distribution and degree of sympathetic disturbances.—*D. G. Marquis* (Yale).

5713. Rubin, M. A. The distribution of the alpha rhythm over the cerebral cortex of normal man. *J. Neurophysiol.*, 1938, 1, 313-323.—Electro-encephalograms from electrodes on the human scalp show that with unipolar leads the reference electrode and the distance between it and the active electrode do not contribute materially to the amount of alpha (10 per sec.) activity recorded. Bipolar leads give a record which is not merely the difference between the activities under the electrodes, especially in the frontal lobes. Distribution curves, taken with both uni- and bipolar leads, of the alpha rhythm over the cerebral cortex are described. Factors which might account for the marked variability of the frontal alpha rhythm are discussed. The results of this study indicate that the alpha rhythms of the two cerebral hemispheres are relatively independent of each other, and that the rhythm may arise in all regions of the cerebral cortex.—*M. A. Rubin* (Worcester State Hospital).

5714. Schabbel, E. Zählenmassige Beziehungen und polarisationsoptische Analyse von Degenerationen im Zentralnervensystem der Schildkröten. (Quantitative relations and polarized-light analysis of degenerations in the central nervous system of turtles.) *Zool. Jb., 2. Abt.*, 1936, 61, 391.—*P. L. Krieger* (Leipzig).

5715. Scharpenberg, L. G., & Windle, W. F. A study of spinal cord development in silver-stained sheep embryos correlated with early somatic movements. *J. Anat., Lond.*, 1938, 72, 344-350.—(*Biol. Abstr.* XII: 6368).

5716. Schmitz, W., & Wiebe, W. Zur Frage der mechanischen Nervenreizung. (On the mechanical stimulation of nerve.) *Pflüg. Arch. ges. Physiol.*, 1938, 240, 289-299.—The shape of action currents obtained by mechanical stimulation of frog sciatic nerve is similar to that resulting from submaximal electrical stimulation. No measurable delay between the stimulus and the beginning of the action current could be demonstrated.—*M. A. Rubin* (Worcester State Hospital).

5717. Schwartz, H. G. Effect of experimental lesions of the cortex on the "psychogalvanic reflex" in the cat. *Arch. Neurol. Psychiat., Chicago*, 1937, 38, 308-320.—A distinction is drawn between "segmental galvanic" reflexes, which occur independently of cortical control, and "psychogalvanic" reflexes. The latter are abolished in the limbs contralateral to an operation removing the premotor (area 6) region of the cortex.—*D. G. Marquis* (Yale).

5718. Sjöstrand, T., Brink, F., & Bronk, D. W. Relation of chemically induced activity in nerve to changes in demarcation potential. *Proc. Soc.*

exp. Biol., N. Y., 1938, 38, 918-920.—The hypothesis that chemical stimulation of nerves occurs only during actual exchange of ions is supported by the simultaneous observation of impulse discharge and changes in demarcation potential, accompanying treatment of frog nerve with various isotonic solutions. It is found that activity may occur with positive or negative change in demarcation potential. It is not yet established that the highest activity occurs during the period of the most rapid exchange of ions.—*H. Peak* (Randolph-Macon).

5719. Stangier, H. Die Furchen der Grosshirnrinde beim Schimpansen. (The sulci of the brains of chimpanzees.) *Z. Anat.*, 1937, 107, 647-671.—*P. L. Krieger* (Leipzig).

5720. Staub, H. Über körpereigene Wirkstoff bei Nervenerregung. (Agents peculiar to the body in nerve excitation.) *Klin. Wschr.*, 1937, Teil 2, 1137-1143.—A review of present knowledge.—*P. L. Krieger* (Leipzig).

5721. Toennies, J. F. Reflex discharge from the spinal cord over the dorsal roots. *J. Neurophysiol.*, 1938, 1, 378-390.—*M. A. Rubin* (Worcester State Hospital).

5722. Trescher, J. H., & Ford, F. R. Colloid cyst of the third ventricle: report of a case; operative removal with section of posterior half of corpus callosum. *Arch. Neurol. Psychiat., Chicago*, 1937, 37, 959-973.—Section of the posterior half of the corpus callosum, in the approach to a third ventricle tumor, caused alexia in the left visual fields without hemianopia for form or color, and tactile agnosia for letters in the left hand without astereognosis or evidence of cortical anesthesia. The relation to motor apraxia following lesion of the anterior part of the corpus callosum is pointed out.—*D. G. Marquis* (Yale).

5723. Wiersma, C. A. G. Function of the giant fibers of the central nervous system of the crayfish. *Proc. Soc. exp. Biol., N. Y.*, 1938, 38, 661-662.—When single shocks of varying intensity were applied to any one of the four giant fibers of *Cambarus clarkii* which control tail flipping, there was no increase in the response with increase in the stimulus intensity, suggesting the operation of the all-or-none principle. Summation of impulses occurred when two different fibers were stimulated successively at intervals varying for the median and lateral fibers. Refractory period is obtained from stimulation of different fibers, indicating that the fibers govern the same final common path.—*H. Peak* (Randolph-Macon).

5724. Youngstrom, K. A. On the relationship between choline esterase and the development of behavior in amphibia. *J. Neurophysiol.*, 1938, 1, 357-363.—A significant increase in the choline esterase content of 3 species of amphibian embryos was found during the period of developing motility. It is suggested that for a satisfactory explanation of developing behavior, neurohumoral factors of nerve physiology must be considered in addition to the

neuro-anatomical development.—M. A. Rubin (Worcester State Hospital).

[See also abstracts 5649, 5669, 5783, 5790, 5829, 5835, 5856, 5905, 5925, 5930, 5932, 5949.]

RECEPTIVE AND PERCEPTUAL PROCESSES

5725. Allen, L. K., & Dallenbach, K. M. Minor studies from the Psychological Laboratory of Cornell University. LXXXVI. The effect of light-flashes during the course of dark adaptation. *Amer. J. Psychol.*, 1938, 51, 540-548.—Flashes of light, with an intensity of 48 foot-candles at the fixation-point and lasting 40 msec., were presented to the observer 5, 25, and 60 min. after the start of dark adaptation. Their effect does not alter the course of the subsequent dark adaptation, though they have a temporary effect, regardless of their temporal position. "After a flash the curve rises suddenly and briefly, recovers rapidly and returns quickly to the level at which it would have been had the flash not occurred. An earlier flash does not influence the effect of a later flash, providing the interval between them is sufficiently long for adaptation to recover."—D. E. Johannsen (Skidmore).

5726. Andina, F. Über "Schwarzsehen" als Ausdruck von Blutdruckschwankungen bei Sturzflügen. (Concerning "seeing black" as a result of variations of blood pressure during sudden drops in flying.) *Schweiz. med. Wschr.*, 1937, 67, 753-756.—P. L. Krieger (Leipzig).

5727. [Anon.] Polaroid malingering test. Special report. *Bull. optomet. Soc., City N. Y.*, 1938, 3, No. 9, 4 ff.—A new test for malingering involves the use of two Polaroid lenses in a spectacle frame, one set at 45° and the other at 135°. With it is used a cross-slide with a Polaroid disk, which fits into the AO Project-O-Chart. While the observer looks at the characters projected on a screen by means of the latter apparatus, the cross-slide can be changed from 45° to 135° and back as desired, so that the light may be completely cut off from either eye without the subject's being aware of it.—M. R. Stoll (Mass. Eye & Ear Infirmary).

5728. Arnulf, A. La vision dans les instruments. Etude de la limite de séparation visuelle. Application à la vision dans les instruments. (Vision through instruments; a study of the limit of visual separation. Application.) *Rev. opt. (théor. instrum.)*, 1937, 8-90.—The author gives his results from a study of the limit of visual separation, and on these results he bases a new theory in harmony with qualitative observations made on landscapes. The work covers three fields: (1) the limit of visual separation and the conditions under which this limit may be due to diffraction; (2) the limit of separation by perfected instruments connected with the eye; and (3) an analysis of imperfect instruments and a method for appreciating their qualities. The following men took part in the discussion: Y. de Grand, A. Couder, A. de Gramont, and C. Lapicque.—G. Goldman (Sorbonne).

5729. Bagh, K. v. Weitere Versuche über die Summation von gleichzeitigen Berührungs- bzw. Druckreizen. (Further investigations of the summation of simultaneous touch and pressure stimuli.) *Dtsch. Z. Nervenheilk.*, 1936, 140, 85-101.—P. L. Krieger (Leipzig).

5730. Berger, C. Weitere Untersuchungen über die Unterschiedsempfindlichkeit (Auflösungsvermögen) des emmetropen Auges. (Further studies of the differential sensitivity (resolving power) of the emmetropic eye.) *Skand. Arch. Physiol.*, 1936, 74, 27-61.—The writer describes a measuring apparatus by means of which two self-illuminating squares of variable sizes in a dark surrounding field may, at any arbitrary distance (up to 25 m.) from the observer, be moved apart or toward each other. In studies of the perception of the minimal separation and of the point of fusion of the two, it was shown by three different methods that there is a linear relationship between the separation of the squares and the distance of them from the observer, i.e., there is a constant visual angle independent of the distance. As compared with black squares on a white background, self-illuminating squares of a certain size on a dark background are useful for determining the resolving power of the eye. This function of the eye must be distinguished from the general concept of "visual acuity." The real limiting value of the resolving power probably results from the mean value of both limens. Because of fatigue, more than 5-8 measurements in succession have no meaning. The resolving power is independent of the size of the squares and of the amount of light falling upon the eye (if equal surface brightnesses are presupposed).—P. L. Krieger (Leipzig).

5731. Biesheuvel, S. The measurement of the threshold for flicker and its value as a perseveration test. *Brit. J. Psychol.*, 1938, 29, 27-38.—20 criteria of perseveration were selected and weighted from the qualities possessed by 310 children chosen as perseverators and 335 chosen as non-perseverators. 42 school-boys were then rated by their class-master on these criteria, and divided into groups of perseverators and non-perseverators. Their threshold for flicker was determined by means of a rotating, half-black, half-white disk, artificially illuminated at constant brightness and observed through an aperture 1 in. in diameter. The average speed of the disk at fusion was found to be significantly less for perseverators than for non-perseverators.—M. D. Vernon (Cambridge, England).

5732. Bogoslovski, A. I. Changements de la fréquence critique des papillotements lumineux à caractère de réflexe conditionné. (Change in the critical frequency of light flicker characteristic of conditioned reflexes.) *Arch. Ophthalm., Paris*, 1938, 2, 219-227.—Bogoslovski describes a series of experiments (carried out under conditions very much like those under which S. V. Kravkov worked), in which he obtained an increase in the critical frequency of flicker for central vision, together with a decrease for peripheral vision, when he used an

auditory stimulus at the moment of adaptation of the eye to darkness. Furthermore, when he repeated his experiments without the auditory stimulus, he was able to obtain complete extinction of the reaction. These changes in the critical frequency of flicker can be interpreted as conditioned sensory reflexes which can be effective in the positive direction as well as in the negative. These reflexes can be modified by purely psychological attitudes present in the subject.—G. Goldman (Sorbonne).

5733. Brecher, G. A. Die Momentgrenze im optischen Gebiet. (The moment threshold in the optical field.) *Z. Biol.*, 1937, 98, 232-247.—In addition to the well-known fusion of successive light stimuli into a uniform light sensation (fusion threshold), there is also a lower threshold characterized by the subjective shift from discrete, separate light impressions to an unsteady impression or flickering (*Flimmern*) in which the separate light stimuli can no longer be distinguished subjectively from each other. As distinguished from this flicker, the less frequent, intermittent illumination which still permits separate light phenomena to be distinguished is designated as pulsation (*Flackern*), and the point of transition is called the pulsation-flicker threshold. As compared with the fusion threshold, this is to a high degree independent of the stimulus intensity. The average is 18 stimuli per sec. The less the intensity of the light stimuli is, the more the fusion threshold (which decreases with the negative logarithm of the intensity) approaches the pulsation-flicker threshold, which itself remains at the same point. The region of the flicker sensation thereby becomes smaller. With less than 18 stimuli per sec., the discrete light phenomena pass over almost immediately into a homogeneous light sensation. The flicker sensation represents an optical phenomenon parallel to buzzing (in sound) and vibration (in touch). These similar thresholds may all be called, in common, the moment threshold, and the minimal time-unit the moment. Their common cause lies presumably in the refractory phase of the ganglionic cells in the perception centers.—P. L. Krieger (Leipzig).

5734. Brown, E. V. L. Net average yearly changes in refraction of atropinized eyes from birth to beyond middle life. *Arch. Ophthalm.*, Chicago, 1938, 19, 719-734.—Retinoscopic tests were made on the atropinized eyes of 1203 persons at intervals of a year or more, yielding records of 8820 changes. Net average yearly changes from birth to the end of the 51st year were computed from these data. Results show an increase in hypermetropia from the 1st to the 8th year and a reversed trend from the 8th to the 13th year which continues in less marked degree up to the 20th year. Results for later ages showed very small net average changes, less than 0.10 diopter, but indicated a very slight increase toward myopia between 20 and 33 years, a change toward hypermetropia between 34 and 42, and again an increase toward myopia between 43 and 51 years. Presbyopic changes may account for the reversed

trend between 34 and 42, while increased densities of the refractive media probably account for the later tendency toward increasing myopia.—M. R. Stoll (Mass. Eye & Ear Infirmary).

5735. Bujas, Z. La mesure de la sensibilité différentielle dans le domaine gustatif. (Measurement of the differential sensitivity in the gustatory modality.) *Acta Inst. psychol. Univ. Zagreb.*, 1937, 2, No. 1. Pp. 18.—Three related studies are reported. (1) Differential taste sensitivity with localized stimulation of the tongue: an S-shaped modification of the Hahn and Günther test-glasses was applied to the lingual point. Different intensity solutions were compared with standard for salt, sweet, acid, and bitter tastes. Weber's law of the constancy of the relative differential threshold was found to hold fairly well for results obtained by this localized technique. There was no lowering of differential sensitivity at extremes of intensity, contrary to the reports of Lemberger, Fodor, and Happisch. Generally lower values were found for relative steps by this technique than previously noted by workers using non-localized stimulation of the tongue. (2) Equalization of the sweet and salt tastes at super-threshold levels and verification of Fechnerian integration: for salt and sugar tastes, the physical units of concentration were found to be a better measure of the strength of stimulus than the physiological units (multiples of the threshold values), thus supporting Fechner's postulate. (3) Measurement of the differential sensitivity of the so-called "electric taste": when corrected for external and habitual stimulus values (constancy method of Helmholtz), a high constancy was obtained for the relative differential threshold of this "electric taste" in the different stimulus levels tested, according to Weber's law.—M. E. Wright (Iowa).

5736. Bujas, Z. Kontrast- und Hemmungerscheinungen bei disparaten simultanen Geschmacksreizen. (Phenomena of contrast and inhibition for disparate simultaneous taste stimuli.) *Acta Inst. psychol. Univ. Zagreb.*, 1937, 2, No. 4. Pp. 12.—Report of a series of experiments based in part on the early work of Heymans and Kiesow, using disparate stimulation in place of mixtures. Low intensities of sweet increase sensitivity to salt simultaneously applied elsewhere on the tongue; higher intensities inhibit it. Heymans, using mixtures, measured inhibition as proportional to the intensity of the active stimulus; disparate stimulation gives a result in a logarithmic relation to the active stimulus. With disparate stimulation by the same substance, inhibition also increases logarithmically. Similar results were obtained in experiments with adaptation. For instance, incomplete adaptation of one sensory region to sweet raises sensitivity to salt.—H. D. Spoerl (American International College).

5737. Chocholle, R. Etude sur les courbes d'établissement de la sensation auditive. (Curves of arousal of auditory sensation.) *Travail hum.*, 1938, 6, 172-195.—A sound of given intensity and frequency is presented to one ear for a brief con-

trollable interval. The subject, on the basis of this brief stimulation, adjusts the intensity of a continuous sound at the other ear to equal the first sound. The time necessary for adequate perception is between 1.0 and 0.3 sec. A logarithmic relation was found between perception and time. There was no relation to frequency of vibration.—H. E. Burt (Ohio State).

5738. Chou, S. K. An optical illusion of personal magnetism. *Amer. J. Psychol.*, 1938, 51, 574-575.—Description of a new optical illusion. If a mirror is covered with a light, even layer of chalk dust, and then a single point closely fixated, it will appear that the dust particles radiate in straight lines from the point of fixation. The author explains the phenomenon in purely physical terms as a function of the mirror reflections of the particles of dust immediately surrounding the fixation point.—D. E. Johannsen (Skidmore).

5739. Clamann, H. G. Die Dunkeladaptationskurve des Auges bei Sauerstoffmangel. (The curve of dark adaptation of the eye during lack of oxygen.) *Luftfahrtmedizin*, 1938, 2, 223-225.—In aviators a reduction of binocular sensitivity to light waves may appear as a result of lack of oxygen. The reduction is in agreement with the individual's altitude stability. A slighter decrease in sensitivity corresponds to greater stability. There was a distinct difference between the monocular and binocular limens at 0 meters and 4000 meters; it varied in the different observers. For the present no further conclusions can be drawn. At the end of the experiment, at a height of 5000 meters after 50 minutes spent in darkness, oxygen was provided. Consistently there was an increase in binocular and monocular sensitivity, together with a greater difference between these than in the last measurements made during oxygen deprivation. A few minutes later this difference again became less. The retinal and central contributors to adaptation do not recover simultaneously. The extraretinal mechanism seems to recover sooner than the retina. This is also suggested by reports of the observers that after the administration of oxygen there was first a sudden lightening of the visual field, followed later by a particularly strong black sensation.—P. L. Krieger (Leipzig).

5740. Colley, R. A woman blind from birth who acquired sight at 22 years of age. *Brit. med. J.*, 1938, Part 2, 67-68.—Operation for congenital cataract permitted the patient gradually to acquire vision. A preliminary account of her early visual behavior is given. Detailed psychological studies are being made and will be reported later.—W. J. Brogden (Johns Hopkins).

5741. Douin, R. Sur la sensibilité photogéotrope du sporogone des hépatiques. (On photogeotropic sensitivity in the sporogonium of Hepaticae.) *C. R. Acad. Sci., Paris*, 1938, 206, 764-766.—Douin performed a series of experiments on *Pellia calycina* with and without the action of gravity, either in complete darkness or under

different degrees of illumination. He found that the sporogonia of *Pellia* reacted to the action of gravity (in opposition to Nemec's belief) and that they are exceedingly sensitive to light stimulation. The latter fact explains why their direction under natural conditions is sometimes found not to be parallel to that of gravity. The curvature is usually linked with the growth process and takes place during the second stage of development of the pedicel, that is, during the stage of cellular elongation.—G. Goldman (Sorbonne).

5742. Dudycha, G. J., & Dudycha, M. M. The estimation of performance-time in simple tasks. *J. appl. Psychol.*, 1938, 22, 79-86.—Six simple tasks were performed by 185 college students who estimated how long each task would require before it was carried out. In 5 of the 6 tasks the students overestimated by small amounts their performance-times. There were no significant differences between men and women in estimation, and women were not more variable than men. The chi-square method did not reveal any general ability to predict performance-time.—S. Roslow (Psychological Corporation).

5743. Efimov, V. V. [The influence of imaginary physical work upon the excitability of the optical centers.] *Bull. Biol. Med. exp., U. R. S. S.*, 1936, 2, 121.—The author measures the peripheral sensitivity with Nagel's adaptometer after dark adaptation. When the conditions are stable and the subject imagines that he is making some kind of physical effort, the sensitivity increases for 5 to 10 minutes. For actual work there is first a diminution of sensitivity, then a short, transitory increase.—(Courtesy *Année psychol.*).

5744. Elsberg, C. A. The sense of smell. XIV. The relation of the cerebral cortex to the olfactory impulse and the areas of the brain involved in fatigue of the sense of smell. *Bull. neurol. Inst., N. Y.*, 1937, 6, 118-125.—If the olfactory membrane is stimulated by an odor at the moment when the individual is concentrating on an image of the same odor, the sensory threshold is lowered. Under the same conditions the odor may be recognized even during a period of complete olfactory fatigue.—D. G. Marquis (Yale).

5745. Elsberg, C. A., & Spotnitz, H. The sense of vision. I. A method for the study of acuity of vision and of relative visual fatigue. *Bull. neurol. Inst., N. Y.*, 1937, 6, 234-242.—Description of apparatus and procedure for a simple test of visual acuity and time of adaptation.—D. G. Marquis (Yale).

5746. Elsberg, C. A., & Spotnitz, H. The sense of vision. II. The reciprocal relation of area and light intensity and its significance for the localization of tumors of the brain by functional visual tests. *Bull. neurol. Inst., N. Y.*, 1937, 6, 243-252.—The relation between area and intensity is a function of the size of the test object and the region of the retina.—D. G. Marquis (Yale).

5747. Elsberg, C. A., & Spotnitz, H. The sense of vision. III. A theory of the functions of the retina. *Bull. neurol. Inst., N. Y.*, 1937, 6, 253-267.—Empirical studies of the relation of threshold values of light intensity to shape and size of test object led to a theory of retinal function in which different processes are assigned to cones, bipolar cells, and ganglion cells.—D. G. Marquis (Yale).

5748. Elsberg, C. A., & Spotnitz, H. Are vision and the olfactory sense governed by the same laws? A comparison of the results of quantitative functional tests of vision and of the sense of smell and its significance. *Bull. neurol. Inst., N. Y.*, 1937, 6, 421-428.—Formulas for dark adaptation of the eyes singly and together hold for fatigue of smell in one or both nostrils. From this it is argued that basically both processes, dark adaptation and olfactory fatigue, are cerebral rather than peripheral, and that the laws governing them are the same.—D. G. Marquis (Yale).

5749. Eschweiler, H. Hundert Erbgutachtungen aus der Taubstummenanstalt Leipzig. (A hundred studies on heredity from the Leipzig institution for deaf mutes.) *Z. Hals-Nas.- u. Ohrenheilk.*, 1938, 43, 231-249.—Eschweiler made exact studies of the residual hearing and also audiometer investigations. Accurate determination of the symmetrical residual hearing is important, since the latter can be deceptive. The ordinary small tuning fork and Edelman's test are entirely sufficient for practice. The only difficulty lies in the field of tone feeling. Sounds above e^3 cannot, for reasons of nerve physiology, be "felt." The author discusses induced labyrinthitis, meningitis, and birth injury as causes of deafness. Langenbeck's law of symmetry is confirmed. About half of all cases of deaf-mutism are to be regarded as hereditary, although absolute proof can be shown for only 25-30%.—P. L. Krieger (Leipzig).

5750. Farnsworth, P. R. The pitch of a combination of tones. *Amer. J. Psychol.*, 1938, 51, 536-539.—"In these experiments the writer attempted to gather further data to prove or disprove the theory that training in melody hunting can influence pitch perception in dyads. . . . In the first (procedure) the S's were presented with a single tone followed by two octave dyads which contained this tone. They were asked which dyad more resembled the single tone in pitch. In the second procedure (which the S's markedly preferred) two dyads were presented along with the request that the S's decide which gave the higher pitch. The boundaries of the smaller of the dyads were within and equidistant from those of the larger. The (276) S's were subdivided into the . . . more and the . . . less musical. When the second procedure was employed it was apparent that the more musical S's . . . violated Stumpf's rule (that the pitch of the lower component of a dyad is more dominant than that of its higher element) even more than did the less musical students." (Critical ratio = 4.10.) "When the first procedure was employed the two groups

were found to differ, but to a smaller and statistically insignificant degree." (Critical ratios = .63 and .74.)—D. E. Johannsen (Skidmore).

5751. Fedorov, N. T., & Fedorova, V. I. [On the problem of the curve of the spectral sensitivity of the eye.] *C. R. Acad. Sci. U. R. S. S.*, 1936, 2, 377-380.—The authors recall that Arndt's studies on the conditions of photopic vision discovered the existence of a maximum of spectral visibility at 565 $m\mu$ and not at 550 as in the acknowledged standard curve. They show that their own measures, established under the same conditions, lead to a similar displacement of the curve.—(Courtesy *Année psychol.*).

5752. Feldman, J. B. Practice of dark adaptation. *Arch. Ophthalm., Chicago*, 1938, 19, 882-901.—A comprehensive review of problems involved in testing dark adaptation, with description of a new instrument. Findings in various types of cases are briefly discussed.—M. R. Stoll (Mass. Eye & Ear Infirmary).

5753. Feldman, S. The 'magnetic eye' illusion. *Amer. J. Psychol.*, 1938, 51, 575-576.—An experimental check on the illusion described by Chou (Amer. J. Psychol., 1938, 51, 574-575) indicates his explanation to be correct, but it is suggested that the psychological supplementation of Wertheimer's *Faktor der Nähe* is required to make it quite complete.—D. E. Johannsen (Skidmore).

5754. Fischer, T. Zur Analogie optischer und akustischer Sinnesreize. (The analogy of optic and acoustic stimuli.) *Forsch. Fortschr. dtsh. Wiss.*, 1938, 14, 13-14.—Following the studies of H. Berger (Jena) on the human electro-encephalogram, Fischer points out the analogy of the theory of musical intervals and the effect of proportion in the building arts. He sees in these the working of an identical principle of selection which may rest on the physiological "preference" for certain numerical proportions.—J. Deussen (Haina).

5755. Fletcher, H. The mechanism of hearing as revealed through experiment on the masking effect of thermal noise. *Proc. nat. Acad. Sci., Wash.*, 1938, 24, 265-276.—The electrical disturbance (due to thermal agitation) between the two ends of an electrical conductor, when amplified and sent through a telephone receiver or a loud speaker, is called acoustical thermal noise and is defined quantitatively. Experiments are then described in which this thermal noise, of known "spectrum level," was used in masking pure tones of 11 different frequencies, and the measurements obtained are related to the place and extent of basilar-membrane excitation.—F. S. Keller (Columbia).

5756. Foley, J. P., Jr. Empirical approaches to the problem of space perception. *Psychol. Bull.*, 1938, 35, 409-422.—The author presents a summary, in outline form, of the more outstanding empirical approaches which have been made to the problem of spatial localization. Only approaches comprising an empirical analysis of some direct phase of space perception have been included. A list of 110 selected references is appended.—A. W. Melton (Missouri).

5757. Ford, F. M., & Wilkins, L. Congenital universal insensitiveness to pain. *Johns Hopk. Hosp. Bull.*, 1938, 62, 448-465.—These authors report three cases of congenital indifference to potentially painful stimuli in children between the ages of seven and eight. This disorder led to serious injuries. Upon examination, no disorder of the nervous system could be diagnosed. The writers believe that these children do not have true analgesia. Possibly they present a defective reaction to the crude sensation of pain. This may be comparable to congenital color blindness and allied disorders. A few cases are cited from the medical literature.—W. Marshall (Appleton Clinic, Wis.).

5758. Gibson, J. J., & Mowrer, O. H. Determinants of the perceived vertical and horizontal. *Psychol. Rev.*, 1938, 45, 300-324.—An examination of the evidence supporting the role of the gravitational and equilibratory, or "g" factors, versus the visual cues, or "v" factors, in perceiving uprightness. The hypothesis is proposed that both factors act jointly, but that orientation to gravity is genetically primary and the more decisive in case of conflict. A large amount of evidence, clinical and experimental, is shown to support this, and also to show that visual orientation presupposes postural orientation. Perceptual space is a motor phenomenon. 10 specific conclusions are formulated concerning the relations of the main lines of the visual field and the direction of gravity.—A. G. Bills (Cincinnati).

5759. Glazer, W. H. Asymmetry in amplitude of accommodation. *Columbia Optomet.*, 1937, 11, No. 44, 5 ff.—Besides the usual causes of asymmetry in amplitude of accommodation (spasm of accommodation, swelling or change of index of the lens), an additional cause may be a degeneration near the origin of the third cranial nerve. Then the symptom may be regarded as pathognomonic of a more general motor collapse and as a more sensitive indicator than the Argyll-Robertson pupil. In one such case a lens flutter was noted, indicating a rapid, intermittent, adequate stimulus. It is suggested that this flutter can be better explained on the basis of Tscherning's theory of accommodation than on Helmholtz's.—M. R. Stoll (Mass. Eye & Ear Infirmary).

5760. Gottschick, J. Erbliche Unterschiede der Geschmacksempfindungen auf P-Aethoxyphenylthioharnstoff. (Hereditary differences in taste sensations with P-ethoxyphenylthio-urea.) *Z. menschl. Vererb.- u. Konst. Lehre*, 1937, 21, 254-265.—In some persons this substance produces a bitter taste, in others different taste sensations or none at all. On the basis of tests on 183 individuals (among them 11 single- and 5 double-ovum twins), Gottschick considers it very probable that the lack of a taste sensation rests on a recessive hereditary basis. Environmental influences could not be demonstrated conclusively.—P. L. Krieger (Leipzig).

5761. Guibor, G. P. A classification of concomitant strabismus: results secured in various types. *Arch. Ophthalm.*, Chicago, 1938, 19, 947-958.—Squints

are classified as pseudoparalytic, accommodative, or associated with defects in fusion, amblyopia, muscular defects, or anisometropia. Treatment is indicated for the various types. Comparison of a control group and one in which orthoptics was added to the treatment by atropinization, refractive correction, and occlusion indicates that chances of recovery are improved with fusion training. Cases of pseudoparalytic squint and of squint associated with muscular and fusion defects and with amblyopia show a low percentage of recoveries with any treatment. Although the angle of squint tends to be larger in some of these groups, that is apparently not a determining factor, since high degrees of squint of the accommodative type respond readily to treatment.—M. R. Stoll (Mass. Eye & Ear Infirmary).

5762. Gullberg, J. E., Olmstead, J. M. D., & Wagman, I. H. Reciprocal action of the constrictor and dilator pupillae during light adaptation. *Proc. Soc. exp. Biol.*, N. Y., 1938, 38, 616-619.—By means of infra-red photography, measurements were made of rabbit's pupils under various conditions of dark adaptation. After complete dark adaptation a stimulus light was thrown into the eye and photographs taken until the pupil reached a constant diameter. The results show: (1) the pupil is smallest when the sympathetic is cut; (2) it is slightly larger when both sympathetic and third nerves are cut; (3) it is still larger in the normal eye when there is an equilibrium between the "residual tone" of the sphincter on the one hand and the elasticity of the iris tissue plus the active contraction of the dilator on the other; (4) it is at its greatest possible maximum when the third nerve is cut or atropine is instilled into the normal eye. The study fails to find any evidence for reciprocal action of the dilator and constrictor.—H. Peak (Randolph-Macon).

5763. Jahn, G. Wird ein Auge als Ganzes oder eine Gesichtsfeldseite (entsprechend einer Hirnhälfte) beim Sehen bevorzugt? (Is one eye favored as a whole or as one side of the visual field—corresponding to one half the brain—in vision?) *Pflüg. Arch. ges. Physiol.*, 1938, 240, 352-376.—When both eyes are functionally equal, most individuals do not show so-called "eyedness." When eyedness is present, it is not a property of the central optical apparatus, but due mainly to differences in the two eyes. Eyedness, when present, sometimes parallels handedness.—M. A. Rubin (Worcester State Hospital).

5764. Kanizsai, D. Über mein heiltechnisches Verfahren bei der Gehörentwicklung bei Taubstummen und bei Personen mit Hörresten. (My technical therapeutic measures in the development of hearing in the deaf and dumb, and in persons with hearing remnants.) *Msschr. Ohrenheilk.*, 1938, 72, 277-287.—P. L. Krieger (Leipzig).

5765. Karpe, G. Eine Untersuchung der Tiefenverschiebung des zweiten Linsenreflexes bei Akkommodation. (A study of displacement of depth of the second lens reflex in accommodation.) *Acta*

ophthal., Kbh., 1938, 16, 125-156.—Investigation of 9 subjects from 9 to 21 years old shows that changes in the form and position of the posterior surface of the lens are larger than was formerly supposed, and larger than those assumed for Helmholtz's and Gullstrand's schematic eye. On the one hand the amount of distortion should be larger, and on the other, axial displacements of the posterior pole of the lens should take place frontwards as well as rearwards. Individual differences in changes of accommodation of the posterior surface of the lens are marked.—P. L. Krieger (Leipzig).

5766. Karwoski, T. F., & Odbert, H. S. Color-music. *Psychol. Monogr.*, 1938, 50, No. 2. Pp. 60.—274 college students were asked to report any color experiences while listening to a phonograph record which contained phrases of popular music specially prepared by the authors. 60% of the subjects showed some tendency to associate color with music. From among this group 37 were selected for individual studies of the nature of the synesthetic experience. The authors found "no single one-to-one relationship between color and music which holds for all subjects." On the other hand, they found "frames of reference" common to a number of subjects, such as moving bands consisting of one or of several colors. Another type of moving color band they characterized as the "sound track," on account of its resemblance to an oscillograph record. Finally they found a frame of reference which they called the "full design form." "The frequency and fluidity of the phenomena of colored hearing offer considerable encouragement for color-music as an art form."—K. F. Muenzinger (Colorado).

5767. Kaupp, V. Analyse positiv geotropischer Bewegungen oberirdischer Pflanzenorgane. (Analysis of the positive geotropic movements of above-ground organs of plants.) *Jb. Bot.*, 1937, 85, 107-150.—P. L. Krieger (Leipzig).

5768. Kostitsch, M. Die Wahrnehmung der Gliederbewegung in Abhängigkeit von der Höhe. (Perception of movements of the limbs as depending upon altitude.) *Luftfahrtmedizin*, 1938, 2, 226-229.—Using a method devised by M. v. Frey and R. du Mesnil de Rochemont and the ascent-schema of H. Hartmann, the author carried out ten experiments in low pressure on the perception of movements of the limbs. A disturbance of this function was found at an altitude of about 5000 meters with observers not easily adapted to altitude and at an altitude of above 6000 meters in those easily adapted. Even with rather long stays at a particular height, the appearance of the disorders could be measured after a certain time.—P. L. Krieger (Leipzig).

5769. Kroiss, K. Ohrtaub-Hirntaub. (Peripheral vs. cortical deafness.) Frankfurt: Armanenverlag, 1938. Pp. 56. RM 1.60.—Although this publication was inspired by the work of Baraczi (Budapest) on auditory education, Kroiss doubts his conclusions, and finds the explanation rather in Kleist's studies on World-War soldiers shot through the temporal lobe. Kleist found that the auditory center is

composed of many different centers, and proved that the variety of deafness (noise, sound, tone, word, sentence, etc.) was determined by the location of the wound. Similarly, in children with cortical deafness, the corresponding fields are destroyed, diseased, undeveloped, or inhibited. By Baraczi's method of auditory education the centers are, so far as possible, stimulated to function. This similarity between soldiers with wounds of the temporal lobe and children with cortical deafness is discussed.—K. Kroiss (Frankfurt a. M.).

5770. Laidlaw, R. W., & Hamilton, M. A. The quantitative measurement of apperception of passive movement. *Bull. neurol. Inst., N. Y.*, 1937, 6, 145-153.—The details of construction and use of a kinesthesiometer for measuring the threshold of perception of passive movement are described.—D. G. Marquis (Yale).

5771. Laidlaw, R. W., & Hamilton, M. A. A study of thresholds in apperception of passive movement among normal control subjects. *Bull. neurol. Inst., N. Y.*, 1937, 6, 268-273.—Modal thresholds for 12 joints were determined in 60 normal subjects. The percentage of error and the variability of thresholds were much greater in subjects over 50 years of age.—D. G. Marquis (Yale).

5772. Laidlaw, R. W., & Hamilton, M. A. Thresholds of vibratory sensibility as determined by the pallesthesiometer: a study of sixty normal subjects. *Bull. neurol. Inst., N. Y.*, 1937, 6, 494-503.—Description of procedure for the clinical measurement of vibration thresholds, with norms for 40 different points on the body surface. Thresholds are found to be higher in obese individuals and in persons over 50 years of age.—D. G. Marquis (Yale).

5773. Lhermitte, J., & Susic, Z. Pathologie de l'image de soi. Les hallucinations des amputés. Etude clinique et pathogénique. (Pathology of the self image. Hallucinations of persons with amputated limbs. A clinical and pathogenic study.) *Pr. méd.*, 1938, No. 33, 627-631.—Observations were made on 15 men and 13 women between the ages of 39 and 81 (the date of amputation going back 3 to 46 years) with respect to hallucinations of the existence of amputated limbs. The only possible explanation seems to be a persistence of the "image of the bodily self" which still gives the impression of life to a part of the body which no longer exists. Bibliography.—G. Goldman (Sorbonne).

5774. Locke, N. M. Some factors in size-constancy. *Amer. J. Psychol.*, 1938, 51, 514-520.—The present study was undertaken to determine the influence of a constant reference point on judgments of size. The stimuli were gray cardboard squares. The standard was 15, the comparison $16\frac{1}{2}$ cm. square; the standard was always 150 cm. from S. 17 college girls served as S's. The procedure was always the same; the method of limits with 4 ascending and 4 descending series was used. The comparison square was moved back in steps of 5 cm. until S reported it consistently smaller than the standard.

4 stimulus conditions were used: Series A: S saw only the table and the test objects. Series B: Two posts were introduced for comparison. Series C: Illumination and grays were changed so the front of the field was shaded. Series D: the rear of the field was shaded. Results showed that a fairly high degree of constancy obtained for all conditions, and the presence of posts in the field increased this effect. When the standard stimulus was shaded and the comparison illuminated, the degree of size-constancy was increased, but when the illuminating conditions were reversed, the degree of size-constancy was decreased. The differences in the degree of size-constancy with the different conditions are statistically reliable except as between Series B (posts) and Series C (front shaded).—D. E. Johansson (Skidmore).

5775. Locke, N. M. Perception and intelligence: their phylogenetic relation. *Psychol. Rev.*, 1938, 45, 335-345.—The phenomenon of perceptual constancy occurs when the perceptual reaction remains the same regardless of wide changes in the physical stimulus. It is contended that degree of perceptual constancy and intelligence of an organism are inversely related. As we ascend the phylogenetic scale, the organism increases in intelligence and decreases in degree of perceptual constancy. Experiments on fish, chickens, lower primates, children, and adults are quoted in support of this contention. The importance of the primitive perceptual mechanism decreases as the organism grows more complex and intelligence replaces it.—A. G. Bills (Cincinnati).

5776. Lythgoe, R. J., & Quilliam, J. P. The thermal decomposition of visual purple. *J. Physiol.*, 1938, 93, 24-38.—The effect of heat on the rate of decomposition of visual purple was determined at various temperatures and hydrogen-ion concentrations. Heat seems to bleach visual purple as do light, acids, and alkalis. The Arrhenius equation applies to the data, from which a heat of activation of 44,000 cal. per gram-mol. is obtained. The reaction is either unimolecular, or bimolecular with an excess of one reactant (probably water).—M. A. Rubin (Worcester State Hospital).

5777. Makarov, P. Bestimmung der Ablaufzeit der Vorgänge in den menschlichen Rezeptoren. (Determination of the temporal course of the process in the receptors of man.) *Bull. Biol. Med. exp., U. R. S. S.*, 1936, 2, 122-123.—The method used consists in utilizing the electrical stimulus and the physiological stimulus on the eye. In order that the electric phosphene and the light sensation be simultaneous, it is necessary that the light stimulation precede the electrical one by 50 to 80 σ .—(Courtesy *Année psychol.*).

5778. Marshall, C. R. An enquiry into the causes of mescal visions. *J. Neurol. Psychopath.*, 1937, 17, 289-304.—The characteristic hallucinations of mescal intoxication are interpreted as depending upon the observation of retinorectal structure, especially the choriocapillary circulation.—D. G. Marquis (Yale).

5779. Marton, H. B. A consideration of some of the factors involved in the treatment of photophobia. *Amer. J. Optom.*, 1938, 15, 260-269.—Photophobia appears usually to be associated with irritation or inflammation of the cornea or iris, with pathological conditions of the sinuses, with excessive dilatation of the pupils, or with refractive errors or horizontal muscle imbalances. Treatment of the causative conditions is recommended instead of the use of palliative and habit-forming absorption lenses. The latter are properly used only where the eyes are subjected to abnormal lighting conditions.—M. R. Stoll (Mass. Eye & Ear Infirmary).

5780. Mugglin, F. Mitteilungen über das optische Leistungsvermögen des Nautilus-Auges. (Communications on the optical performance ability of the eye of Nautilus.) *Rev. suisse Zool.*, 1937, 44, 401-404.—P. L. Krieger (Leipzig).

5781. Mündel, R. Kettengleichungen im Gebiet des Geschmackssinnes. Vergleich bitter schmeckender Lösungen. (Chain equations in the field of gustation. Comparison of bitter tasting solutions.) Jena: (Phil. Diss.), 1936. Pp. 27.—P. L. Krieger (Leipzig).

5782. Newhart, H. Hearing deficiencies in relation to speech defects. *Laryngoscope, St. Louis*, 1938, 48, 129-137.—R. R. Willoughby (Brown).

5783. Oldberg, S. Versuch zur Erklärung der Quadrantanopsie bei Schläfenlappentumor. (Attempt at explanation of quadrant anopsia in temporal lobe tumor.) *Acta med. scand.*, 1937, 93, 330-341.—P. L. Krieger (Leipzig).

5784. Palmer, C. E. The dark adaptation test for vitamin A deficiency. *Amer. J. publ. Hlth.*, 1938, 28, 309-315.—"An investigation is reported in which the effect of vitamin A administration on biophotometer dark adaptation measurements in school children was studied. The results showed no significant difference in the improvement in biophotometer measurements between a group of children whose diet was supplemented and a control group whose diet was not supplemented with vitamin A. The need is indicated for further work on the relationship between dark adaptation and vitamin A and on methods for measuring the relationship, particularly in surveys of children."—(*Child Develpm. Abstr.* XII: 1020).

5785. Philip, R. B. A comparison of color-blind tests. *Amer. J. Psychol.*, 1938, 51, 482-488.—42 S's (college men) who made one or more mistakes on the Ishihara color-blind test (6th ed.), were given a battery of 5 other tests: Edridge-Green, Nagel, Holmgren wools, Philip color perception, and Ishihara, new edition (available for only 24 cases). The scores on all tests were converted into comparable units, and the r 's between them computed. These range from .48 to .79 for 35 color-blind or anomalous trichromats, and from .50 to .90 for 42 cases of defective color vision (including the above 35). The Ishihara is the most effective test not involving apparatus, and usually requires less than 5 min. for administration. The Philip test is useful

for detecting the color-weak.—D. E. Johannsen (Skidmore).

5786. **Piker, P.** *Psychologic aspects of deafness.* *Laryngoscope, St. Louis*, 1937, **47**, 499-507.—The author points out that there is no specific psychologic reaction which may be considered peculiar to deafness. Defective physical efficiency of any type is generally unacceptable to the individual, and is apt to stimulate rationalizations of various sorts. Increased sensitivity and seclusiveness may result, as may an overcompensating aggressiveness. The growth of suspiciousness and frank paranoid projections is a particularly frequent development among the deaf. Especially should one guard against the temptation to utilize the existence of one's defect as an excuse to yield to the universally present tendency toward dependence. Since the ability to hear is an important factor in efficient and satisfactory adjustment, every effort should be made to perfect this faculty in so far as is possible with lip-reading, ear-phones, and whatever other artificial aids are available. Beyond this, however, the individual should not permit his activities to be too markedly limited and discolored by his deafness. It is necessary to remember always that one is attempting to adjust, not to deafness, but to life.—(*Child Develpm. Abstr.* XII: 1264).

5787. **Porter, E. L. H.** *Factors in the fluctuation of fifteen ambiguous phenomena.* *Psychol. Rec.*, 1938, **2**, 231-253.—Conclusions based upon the observations of fifteen ambiguous phenomena such as the Necker cube, Rubin cross and circles, Rubin goblet and faces, Mach truncated pyramid, duck-rabbit, and Rubin iron cross, on three different days by 24 S's equally divided as to sex, are: (1) the cube is the best single figure for measuring individual differences, (2) the slowest figures tend to be the most complex, and the fastest the simplest, (3) a subject with a more rapid fluctuation rate tends to be more socially introverted as measured by the Nebraska personality inventory, (4) rates of fluctuation are highly reliable measures of one attribute of an individual, (5) there is a characteristic rate of fluctuation for each individual, and "each figure has a sort of characteristic rate which for all figures is not equally amenable to the observer's rate."—P. S. de Q. Cabot (Simmons).

5788. **Rejtő, A.** *Reizen die Schallwellen auch den statischen Apparat?* (Do sound-waves also stimulate the static mechanism?) *Mschr. Ohrenheilk.*, 1938, **72**, 34-39.—Following the procedure of Högyes and Tullio and on the basis of negative results in the so-called radical operation, the writer concludes that rather strong tones stimulate directly the static mechanism of the labyrinth. They produce, however, no auditory sensations but only reflex muscular movements.—P. L. Krieger (Leipzig).

5789. **Roenu, E.** *Zur Psychologie des Hörens.* (The psychology of hearing.) *Mschr. Ohrenheilk.*, 1937, **71**, 728-741.—The psychology of hearing begins with the perception of meaningless rather

than meaningful sounds. At first it must contemplate merely the total nature of audible sources and trace the connection of tonal, vocal, and auditory meaning. Only then can the questions of musicality and of speech audition be opened to proper investigation.—P. L. Krieger (Leipzig).

5790. **Salmon, A.** *Le rôle du système sympathique dans la physiopathologie de la douleur.* (The role of the sympathetic system in the physiopathology of pain.) *Pr. méd.*, 1938, No. 48, 939-941.—The influence of the sympathetic element is shown to be very important in the phenomenology of pains of different types (central pains which are associated with vegetative disturbances, cerebrospinal pain, etc.). All important pain is accompanied by a vegetative syndrome, which is probably due to reactions in certain vasomotor or sympathetic centers, particularly to reactions in the thalamus. The psychic element is only a secondary process, for the physiological process is necessarily the basis of all pain.—G. Goldman (Sorbonne).

5791. **Salzi, P.** *De la genèse de la sensation au parallélisme psycho-physiologique.* (On the genesis of sensation with respect to psychophysiological parallelism.) *Rev. phil.*, 1938, **63**, 439-442.—The author describes his experiments on the reduction of myopia. His results indicate the influence of consciousness on the body, in that he demonstrates the freedom of man's internal life with respect to the physical determinism of the environment.—G. Goldman (Sorbonne).

5792. **Schulz, E.** *Die Reaktionen des Ciliaten Trachelocerca auf mechanische Reize.* (The reactions of the ciliate *Trachelocerca* to mechanical stimuli.) *Zool. Anz.*, 1936, **116**, 330.—P. L. Krieger (Leipzig).

5793. **Sharman, S.** *Some observations on the theory of perception.* *J. ment. Sci.*, 1938, **84**, 273-283.—The author gives a broad treatment of perception, based on the work of Parsons, James, Bergson, McDougall, Woodworth, and others. Addressing himself primarily to medical men, he suggests that they should "approach psychological problems along a biological pathway."—C. J. Herrick (Pennsylvania).

5794. **Skramlik, E. v.** *Auf welche Weise gelangen wir zu unseren Raumvorstellungen?* (How do we reach our ideas of space?) *Forsch. Fortschr. dtsh. Wiss.*, 1938, **14**, 28-29.—Ideas of space are formed through both visual and haptic senses. Haptic space is bordered on the one side by a "solid" surface (exterior of the body), on the other by a "free" surface (the environment which can be reached by our bodies). This gives recognition and differentiation of places in the immediate surroundings, and on it are built the more complicated estimations and measurements of space. Recognition and distinction of position in haptic space cannot be made with complete certainty. Haptic space is not uniformly filled out, but is like a grating with meshes of varying thickness. Haptic and visual space coincide only slightly, and in fact appear to be

opposed, due to the different sites of evaluation; for haptic judgment this is the angle of the head with the neck, for optic judgments the position of the eyes.—*J. Deussen* (Haina).

5795. **Tinker, M. A.** Illumination standards for efficient work in the home, school, office and factory. *Amer. J. Optom.*, 1938, 15, 198-207.—A review of experimental results shows that the intensity levels popularly recommended are in excess of those demonstrated to yield maximum efficiency for ordinary work. Different studies agree in finding 3 to 10 foot-candles sufficient except where especially fine or quick discrimination is required. Distribution of light is an important factor, for intensity may be sacrificed with advantage when a glaring source is used. Color filters have not appeared to increase efficiency or comfort under ordinary circumstances.—*M. R. Stoll* (Mass. Eye & Ear Infirmary).

5796. **Tinker, M. A.** Effect of stimulus-texture upon apparent warmth and affective value of colors. *Amer. J. Psychol.*, 1938, 51, 532-535.—50 men and 50 women, between the ages of 17 and 30, arranged 11 samples of colored paper and 11 comparable samples of silk crepe according to (1) affective preference, and (2) warmth. "The results . . . warrant the following conclusions: (1) Rankings for apparent warmth and for affective value of color can be established with a high degree of consistency." (Reliability r 's average approximately .93.) "(2) Surface texture, as represented by coated paper versus cloth, has little or no effect upon apparent warmth or affective value of colors. (3) Warm colors tend to be preferred over cool colors or achromatic stimuli. (4) The ranking for apparent warmth of colors by men is practically identical with that for women. There is, however, a slight tendency toward sex differences in color preferences."—*D. E. Johannsen* (Skidmore).

5797. **Tomaschek, H.** Histologische Untersuchungen des Gehörorgans von *Trutta fario*. (Histological studies of the auditory organ of *Trutta fario*.) *Zool. Jb., Abt. 3*, 1937, 58, 159-162.—The brook trout is among the fishes with bad hearing. The macula lagenae is only slightly developed, as is shown by the length and breadth of its sensory epithelium. The writer considers the lagenae to be the auditory organ of fishes.—*P. L. Krieger* (Leipzig).

5798. **Uren, C. T.** Hard of hearing school children. *Neb. St. med. J.*, 1937, 2, 300.—The first step in a program for management of school children who are hard of hearing is the detection of the hearing defects. The average number of hearing defects runs between 60 and 140 per thousand children. The second step is a visit to the parents of the child, and the third step is referring the child for medical help. Often parents are unaware that the child has a hearing defect. Instruction in lip reading and speech correction should not be neglected.—*J. P. Robertson* (Brown).

5799. **Verhoeff, F. H.** Anomalous projection and other visual phenomena associated with strabismus.

Arch. Ophthalm., Chicago, 1938, 19, 663-699.—With various simply contrived tests, observations on the perceptions of squinters have been made which indicate greater differences from normal perceptual processes than are usually conceded. Corresponding retinal points are defined as the retinal terminals of corresponding visual axes; these axes correspond only with one another and do not vary with position of the eyes. No such corresponding axes appear to exist for squinters, and consequently there are no corresponding retinal points. Perception in the binocular field appears to be dependent upon impressions from both eyes, with the squinting eye determining the perception in those portions of the field in which it has the relatively more acute vision. Images falling on the foveas of the two eyes are perceived as simultaneous, but are given the spatial relationships which they would have if seen by the non-squinting eye only. These and other new observations lead to theories concerning processes in visual perception peculiar to cases with anomalous projection.—*M. R. Stoll* (Mass. Eye & Ear Infirmary).

5800. **Viaud, G.** Recherches expérimentales sur le phototropisme des daphnies. Etude de psychologie animale. (Experimental studies on phototropism in *Daphnia*. A study in animal psychology.) Strasbourg: Thèse Doctorat ès Lettres, 1938. Pp. 196. **Ibid.** Le phototropisme animal. Exposé critique des problèmes et des théories. (Animal phototropism. Critical discussion of problems and theories.) Strasbourg: Thèse complémentaire pour le Doctorat ès Lettres, 1938. Pp. 127.—Previous studies and his own experiments are used by the author as a basis for his discussion on the nature of phototropic reactions in *Daphnia*. His explanation is physiological: it is dermatotropic sensitivity which causes the animal to turn toward the light and which releases locomotor reflexes by causing a true physiological polarization. The compound eye serves only to orient the animal accurately toward the source of light. There is no real negative phototropism as opposed to positive phototropism, as the positive phase is one of motor impulsion while the negative phase corresponds to the period of regeneration of the photosensitive substances. In principle we can say that the phototropic reactions are accompanied by sensitivity, but it would be difficult as well as unscientific to give an opinion on the states of consciousness which accompany the animal's different reactions.—*G. Goldman* (Sorbonne).

5801. **Wagman, I. H., & Gullberg, J. E.** Effect of vitamin A deficiency upon rate of pupil dilation during dark adaptation. *Proc. Soc. exp. Biol., N. Y.*, 1938, 38, 613-615.—It was proposed to determine whether changes in the rate of darkness adaptation as measured by pupillary size resulted from vitamin A deficiency. 9 rabbits were placed on vitamin A-free diet for 92 days. Measures were made before this and were repeated in alternate weeks. By the 70th day deficiency symptoms appeared. No significant changes in the rate of dark adaptation were detected. It is concluded that the pupillary

reflex is not elicited by rod functioning, for otherwise the loss of visual purple caused by vitamin A deficiency should have produced some change in pupillary behavior.—*H. Peak* (Randolph-Macon).

5802. Wells, W. A. **Facts and fallacies of hearing tests.** *Laryngoscope, St. Louis*, 1938, 48, 137-146.—*R. R. Willoughby* (Brown).

5803. Werner, H. **Binocular depth contrast and the conditions of the binocular field.** *Amer. J. Psychol.*, 1938, 51, 489-497.—"The present study tries to test out certain aspects of (a theory to explain binocular contrast) by contributing some experimental evidence. An inverse relation has been found between the amount of apparent depth in the configuration which causes the contrast and the amount of contrast depth. These results coincide with the theoretical assumption that binocular depth contrast is caused by a change of correspondence within the particular binocular field."—*D. E. Johannsen* (Skidmore).

5804. Youtz, R. E. P., & Stevens, S. S. **On the pitch of frequency-modulated tones.** *Amer. J. Psychol.*, 1938, 51, 521-526.—3 S's, having good acuity in pitch-discrimination, served in this experiment. They were asked to set an adjustable pitch so that it matched the pitch of a "modulated" tone (i.e., a "vibrato"). Three vibratos were used, all giving a central component of 1000 cycles, but having ranges of 15, 22, and 29 cycles. Results showed that the "pitch of the vibrato becomes more indeterminate as the range of modulation increases, but this change appears to be due to the fact that, as the range increases, the relative amplitude of the outer side bands increases. In other words, a vibrato of wide range excites a more extensive area of the basilar membrane. The principle of uncertainty does not apply to the case of frequency-modulated tones as has been suggested, because the components of such tones are steady and continuous, and the problem of short duration therefore does not arise. The entire situation can best be conceived in terms of a set of fixed frequencies acting on a set of tuned resonators whose tuning is not very sharp."—*D. E. Johannsen* (Skidmore).

5805. Zewi, M. **Laktoflavin (vitamin B₂) i n  thinnan vid olika adaptationstillst  nd.** (Lactoflavine (vitamin B₂) in the retina under different conditions of adaptation.) *Finska L  kS  llsk. Handl.*, 1937, 80, 923-936.—After a report of the discovery of and investigations with lactoflavine, the writer gives a detailed account of his own experiments at the physiological institute of the University of Helsingfors, in which the lactoflavine content in the eyes of fish (perch) was determined after stimulation with direct light. While the lactoflavine content varied greatly from fish to fish, it was found to be equal in the two eyes of the same fish. One eye was therefore blindfolded and used as a control. After 4-8 hours of direct light stimulation from an ordinary 150-watt bulb or a strong mercury quartz lamp at a distance of 50 cm., no reduction was found in the lactoflavine content of the retina. The lactoflavine

in both light and dark adapted eyes was accumulated in the pigmented epithelial layer. Variations in the experimental method gave similar results. The article concludes with a general discussion on the importance of lactoflavine for vision. Brief summary in German. Extensive bibliography.—*M. L. Reymert* (Mooseheart Laboratory for Child Research).

[See also abstracts 5635, 5686, 5689, 5705, 5856, 5863, 5872, 5988, 5997, 6004, 6033, 6038, 6039, 6043.]

LEARNING, CONDITIONING, INTELLIGENCE

(incl. Attention, Thought)

5806. Alexander, W. P. **Intelligence, concrete and abstract: note.** *Brit. J. Psychol.*, 1938, 29, 74.—This is the revised table of norms from 7 to 19 years for the author's performance scale, described in Appendix 2, "Intelligence, concrete and abstract," *Brit. J. Psychol. Monog. Suppl.*, 1935, No. 19.—*M. D. Vernon* (Cambridge, England).

5807. Blankenship, A. B., & Humes, J. F. **Effect of praise and reproof upon memory span performance.** *Amer. J. Psychol.*, 1938, 51, 527-531.—Auditory presentation of digits was used in this experiment. 130 women college students, divided into 3 groups, acted as S's. Each group was tested twice. Instructions before the second trial included praise for one group, reproof for one, and no change for the third. The results show that "the effects of praise and reproof . . . are negligible. . . . This is indicated by the fact that gains in memory span for each of the groups (control, approved, reproof) were negligible, and differences between the gains of each group were not statistically reliable. In the groups tested, the approved group demonstrated a significantly more reliable memory span performance (.88) than the reproof group (.41) or the control group (.47), while the difference in reliability coefficients between the last two groups was not statistically significant."—*D. E. Johannsen* (Skidmore).

5808. Burks, B. S. **On the relative contributions of nature and nurture to average group differences in intelligence.** *Proc. nat. Acad. Sci., Wash.*, 1938, 24, 276-282.—Drawing upon two sources of data applicable to the problem of average group differences in IQ with respect to father's occupation, and utilizing techniques (suggested by Wright) based upon the method of path coefficients, the author presents data which lead to an estimated 3/4, 1/4 as the relative contributions of heredity and environment ("with approximately even chances that the contribution of nurture is in truth between 18 and 33 per cent").—*F. S. Keller* (Columbia).

5809. Elwell, J. L., & Grindley, G. C. **The effect of knowledge of results on learning and performance. I. A co-ordinated movement of the two hands.** *Brit. J. Psychol.*, 1938, 29, 39-53.—The way in

which knowledge of results affects the acquisition and maintenance of a muscular skill was studied by means of an apparatus in which the subjects attempted, by a movement of the two hands, to direct a spot of light on the bull's-eye of a target. It was found that no improvement in accuracy of performance occurs without knowledge of results, but improvement occurs with knowledge of results; and that removal of knowledge of results after a skill has been acquired leads to a deterioration of performance. Knowledge of results appears to lead to improvement (1) by causing a tendency to repeat actions which have been successful, (2) by setting up a tendency to correct, in the appropriate direction, any unsuccessful actions, (3) by setting up a conscious attitude or mood conducive to accurate performance. Removal of knowledge of results produces an attitude which is not conducive to accurate performance.—*M. D. Vernon* (Cambridge, England).

5810. Gantt, W. H. Contributions to the physiology of the conditioned reflex. *Arch. Neurol. Psychiat.*, Chicago, 1937, 37, 848-858.—Review of experiments, most of which are published in full elsewhere, dealing with the relation of the unconditioned and the conditioned reflex, humoral conditioning, and elements of the conditioned reflex arc.—*D. G. Marquis* (Yale).

5811. Gellhorn, E., & Kraines, S. H. Word associations as affected by deficient oxygen, excess of carbon dioxide and hyperpnea. *Arch. Neurol. Psychiat.*, Chicago, 1937, 38, 491-504.—Studies with the Kent-Rosanoff test on more than 100 individuals showed that oxygen deficiency, carbon dioxide excess, and hyperpnea produced a statistically reliable increase in the number of unusual or individual reactions and in the occurrence of nonspecific reactions and perseveration.—*D. G. Marquis* (Yale).

5812. Gillespie, R. D. Amnesia. *Arch. Neurol. Psychiat.*, Chicago, 1937, 37, 748-764.—Psychological and clinical data are presented to show that the process of remembering involves a complexity of component functions: registration, retention, recall, time ordering of experience, feeling of pastness, imagery, and personal identity. Psychogenic amnesia is dependent mainly on failure of recall, which may result from the activity of the ego itself, either as self-protection from the memory of experiences of shock intensity or as the result of a conflict of wishes. Inhibition of recall may also be the result of the operation of the super-ego, acting on experience, real or fantasied, embodying a feeling of guilt.—*D. G. Marquis* (Yale).

5813. Graham, J. L. An experiment in generalizing: a unicursal problem. *J. exp. Psychol.*, 1938, 23, 96-150.—This experiment was derived from the familiar puzzles of tracing geometric figures without lifting the pencil from the paper, crossing, or re-tracing lines. The problem was assigned of learning generalizations to characterize the types of figures that could or could not be traced unicursally. The only scores available for analyzing the learning were

either complete success or complete failure. However, when four generalized discriminative types of acts were suggested as sub-goals in the learning, the incidence of success increased 300 to 500%. A comparison of accomplishment in generalizing with that of grades and intelligence test scores revealed positive correlations of .27 to .43 with the single problem. Critical levels were more significant. For example, the percentages of success in the upper decile of intelligence scores were eight times as great as in the lowest decile.—*J. L. Graham* (Lehigh).

5814. Hilgard, E. R., Campbell, R. K., & Sears, W. N. Conditioned discrimination: the effect of knowledge of stimulus-relations. *Amer. J. Psychol.*, 1938, 51, 498-506.—Apparatus and procedure were the same in this as in the earlier experiments (*Amer. J. Psychol.*, 1937, 49, 564-580); increase in the illumination of the left of a pair of exposure windows was accompanied by a puff of air against the cornea. On day I, 60 presentations of the positive stimulus and the air-puff were presented. On day II, the S's were divided into 2 groups. Group A (control) received 60 trials, one half of which were of the right window (not reinforced) and one half of the left (always reinforced). Group B (experimental) was told that though the right window would sometimes be illuminated, no air puff would occur, while an air puff would always occur when the left window was illuminated. Results showed that for Group B a conditioned discrimination occurred during the first 12 trials, while Group A responded during this period to all stimuli. By trials 25-36 the performance of the two groups was essentially alike. "The results furnish another instance of the significance in man of verbal controls over processes which have been supposed to be relatively automatic."—*D. E. Johannsen* (Skidmore).

5815. Hollingworth, H. L. Verbal Gestalt experiments with children. *J. exp. Psychol.*, 1938, 23, 90-95.—9-year-old bright children (IQ 107-120) undertook to make words out of specified groups of letters which in half the cases were already organized to form other words, and in the other half occurred in nonsense arrangement. Letters already organized into words ("gestalted") were not less easily manipulated than were letters occurring in nonsense arrangement. In fact, the scores were higher in the former case. The advantage was greater with the brighter half of the children, and it was greater with the easier word problems. The results confirm an earlier experiment with college students. They contradict the expectations that would be based on any reasonable interpretation of so-called "laws of Gestalt."—*H. L. Hollingworth* (Columbia).

5816. Holzinger, K. J. Reply to special review of "Twins." *Psychol. Bull.*, 1938, 35, 436-444.—One of the authors of *Twins: A Study of Heredity and Environment* answers the criticisms published by Quinn McNemar (*Psychol. Bull.*, 1938, 35, 237-249).—*A. W. Melton* (Missouri).

5817. Hull, C. L. The goal-gradient hypothesis applied to some "field-force" problems in the behavior of young children. *Psychol. Rev.*, 1938, 45, 271-300.—The hypothesis of goal-excitatory gradient and the habit-family hierarchy, formerly applied only to rat maze behavior where distance vision is cut off, are here used to explain behavior in which vision is unobstructed and locomotion relatively unrestricted. Changes in visual stimulation during locomotion are conditioned to the accompanying movements, and, after training, the increasing vigor of the organism's advance is logarithmic in reference to the goal. Several problems are given a theoretical formulation on this basis, such as that the shorter of two alternative paths would have the stronger excitatory tendency; and that when the shorter path is blocked, solution of the problem is hindered rather than helped by increasing the excitatory strength of the lure, or the strength of the drive, or decreasing the distance of the lure. Some of the factors operating in Lewin's conflict-of-tendencies situations are re-interpreted. Finally, 40 propositions are assembled on the basis of the preceding theoretical analysis, most of which still need experimental verification.—A. G. Bills (Cincinnati).

5818. Lahy, J. M. Test d'attention diffusée avec présentation mécanique de l'apprentissage et mesure de la durée des réactions. (A test of diffused attention, with mechanical record of learning and reaction time.) *Travail hum.*, 1938, 6, 129-171.—A revision of a test used for 10 years in selecting drivers. The subject reacts with both feet and a push button to sequences of lamps and bells. Improvements include ink recording with pens controlled by a vibrator, automatic record of attempts necessary to reach a designated number of correct responses, and the possibility of reading reaction time directly from portions of the record. There is a correlation of $.52 \pm .05$ with number of accidents.—H. E. Burr (Ohio State).

5819. Müller, F. Untersuchungen über die Zahl und das Geschlechterverhältnis der Geschwister von begabten und unbegabten Schülern. (Studies on the number and sex ratio of siblings of intelligent and dull pupils.) *Arch. Rass.- u. GesBiol.*, 1938, 32, 143-158.—Müller made a sampling of 977 intelligent and 803 dull boys and girls from the Freiburg schools, together with their parents. While the intelligent showed the sex ratio of 106.5 boys : 100 girls, the relationship among the unintelligent was 131 : 100. The author considers that the greater fertility in male offspring among poorly endowed families possibly represents the true situation, although he is unwilling to generalize his findings. Possibly antagonism between sex glands and brain function plays a part; certainly the greater actual number of children in dull families does so. As to the birth months, the curve of the intelligent is highest in March and lowest in October, but the variations are slight. The curve of the dull is irregular,

with a rise in April, the maximum in December, and the minimum in July.—P. L. Krieger (Leipzig).

5820. Oldfield, R. C., & Zangwill, O. L. The acquisition of verbal repetition habits. *Brit. J. Psychol.*, 1938, 29, 12-26.—Three types of narrative prose, normal, ungrammatical, and inconsistent (including far-reaching inconsistencies of factual and logical coherence), were successfully learned by 15 subjects. At specified stages repetitions were obtained, prompts and corrections being given where necessary; all errors were recorded. With normal material, there occurred first the formation of a very general scheme with retention of dominant detail, by means of a constructive process. Then the scheme became more articulated, contained more detail, and much less construction occurred. Finally, sufficient organization was obtained to permit literal reproduction. With ungrammatical material, only a very vague scheme was formed at the first repetition, though there was awareness of the ungrammatical nature of the material. At the second repetition the constructive type of recall began to appear. Material incorporating factual and logical inconsistencies provided opportunity for widespread operation of constructive change. Thus it seems that disturbance of the mode of extrinsic meaning exercises little effect upon the process of scheme formation.—M. D. Vernon (Cambridge, England).

5821. Rose, J. A., Tainton-Pottberg, A., & Anderson, O. D. Effects of insulin shock on behavior and conditioned reflex action in the well trained sheep. *Proc. Soc. exp. Biol., N. Y.*, 1938, 38, 653-655.—During the year preceding the experiment the sheep had gradually failed to show the conditioned motor reflex of the foreleg to a buzzer. The animal was started on 10 units of insulin daily and the dose was increased until coma and convulsions occurred. Convulsions were thus induced on 7 days. One day's results are reported. The animal was tested with buzzer and shock at the usual 5-min. intervals while in coma, during recovery period, and after. There was no response at first. Glucose was administered after one hr. In 30 min. the animal became more alert and spontaneous leg flexions appeared. Then defensive leg movements to shock occurred. One hr. after the glucose was given, the conditioned response appeared with abnormal vigor and spontaneous movements decreased. The period of excitability resembled experimental neurosis.—H. Peak (Randolph-Macon).

5822. Scott, T. C. The one-error-per-trial method of maze learning: how affected by instructions. *J. exp. Psychol.*, 1938, 23, 80-89.—500 human S's, divided into seven groups and equalized for sex and intelligence differences, learned U-type finger mazes of 10, 18 and 21 alleys. The experimental groups stopped as soon as they made an error, and after 15 secs. started again at the entrance. The control groups went through the whole maze each time, with 60 sec. intervals. The groups learning the 18- and 21-alley mazes were given fuller instructions than those learning the 10-alley maze. The whole

method was slightly superior in errors and time for the 10-alley maze, but the one-error method was decidedly superior in errors and slightly superior in time for the 18- and 21-alley mazes. The superiority of the one-error method for the longer mazes seemed to be due to intensity (caused by the interruption), and the fuller instructions.—*T. C. Scott* (Ohio University).

5823. **Shakow, D., & Goldman, R.** The effect of age on the Stanford-Binet vocabulary score of adults. *J. educ. Psychol.*, 1938, 29, 241-256.—"The Stanford-Binet vocabulary test was given to 203 subjects of the age range eighteen to ninety selected in each decade to give a representative sample of its educational attainment. When thus equated indirectly for mental level, vocabulary score was found to remain constant at a level of about fifty-seven words through the seventh decade with a slow decline thereafter."—*A. W. Melton* (Missouri).

5824. **Slater, P.** Speed of work in intelligence tests. *Brit. J. Psychol.*, 1938, 29, 55-68.—A method is described for measuring speed rates at which children work when doing intelligence-test problems; they work at their own pace and record for themselves the time they spend on each problem. Measures of speed rate from various groups agreed among themselves, but did not show any close association with measures of intelligence obtained from either verbal or non-verbal tests, whether the time for them was limited or not. These statistical facts are evidence that the children, when left free to set their own pace of work, tended to adopt consistent speed rates, which they adhered to when working on problems of different types and different degrees of difficulty. These rates did not depend alone on the amount of their general intelligence.—*M. D. Vernon* (Cambridge, England).

5825. **Thorndike, R. L.** On what type of task will a group do well? *J. abnorm. soc. Psychol.*, 1938, 33, 409-413.—The hypothesis that group superiority in mental work is greater in materials permitting a greater range of response was tested, using two forms of completion, vocabulary, limerick completion, and cross-word puzzle tests. Results with the first three types of material were in accord with the hypothesis. Making cross-word puzzles was carried out less successfully by the group than solving them. The complexity of the integration involved in making the puzzle is suggested as a possible cause of this outcome.—*C. H. Johnson* (Boston Psychopathic Hospital).

5826. **Travis, R. C., & Anderson, H. C.** The effect of electric shock on learning in eye-hand co-ordination. *J. exp. Psychol.*, 1938, 23, 101-107.—In this investigation the learning task was to hold a flexible stylus on an insulated moving target which oscillated in front of the standing subject at the rate of one oscillation per second. An analysis of the learning data reveals little or no difference in the total percentage gain or the average gain per trial between a control group and two groups which received shocks. The average scores for the experi-

mental group which received shocks during each trial were lower in all trials than the control group or the second experimental group, which received shocks during alternating trials. Conversely, the scores made in the shock trials for the experimental group which received shocks during alternating trials were higher than the scores in the non-shock trials. The results point to the hypothesis that the persistence of the electric shock is disrupting to learning, whereas its occurrence during alternating trials is facilitative.—*H. W. Karn* (Pittsburgh).

5827. **Wilde, K.** Über Intelligenzuntersuchungen an Zwillingen. (Investigations of intelligence in twins.) *Z. indukt. Abstamm.- u. Vererb. Lehre*, 1937, 73, 512-517.—*P. L. Krieger* (Leipzig).

5828. **Woodrow, H.** The effect of practice on groups of different initial ability. *J. educ. Psychol.*, 1938, 29, 268-278.—The data used in this study were obtained from two groups of college students who practiced 7 and 4 tests for 39 and 66 10-minute periods, respectively. The tests used were: anagrams, digit-letter substitution, spot-pattern, horizontal adding, cancellation (under 3 different instructions), making gates, and the judgment of relative lengths. Each large group was divided into 5 subgroups on the basis of initial ability. The degree of convergence or divergence of the groups was found to be primarily a function of the regression coefficient, which may in turn best be regarded as the product of an index of the effect of practice on individual differences, σ_P/σ_I , and the correlation between initial and final abilities, r_{IF} . The effect of the nature of the units upon these values is shown by comparing the results obtained with raw scores with those resulting from an application of Thurstone's method of absolute scaling. With absolute scaling the subgroups drew closer together with practice in all four of the tests scaled, but two of the tests showed an increase in individual differences with practice (σ_P/σ_I greater than 1.00). Explanatory hypotheses are advanced to account for the changes in individual differences and the falling off with practice in the correlation between initial and final score. Especially stressed in explanation of the latter change is the change, during the course of practice, in the pattern of operations whereby the task is accomplished.—*A. W. Melton* (Missouri).

5829. **Zéleny, G. P., & Kadykov, B. I.** [Contribution to the study of conditioned reflexes in the dog after cortical extirpation.] *Méd. exp. Kharkov*, 1938, No. 3, 31-34.—Following almost complete cortical extirpation in the dog, a defense reaction (to electric shock applied to left forepaw) was conditioned to the tone C. The reflex appeared in response to neighboring tones as in normal dogs, and although 300 presentations of one of these tones without reinforcement failed to bring about complete extinction, some discrimination appeared in the form of a weakening of the response without affecting the strength of the conditioned reflex to C. In addition, characteristic reactions to the odor of meat were conditioned to that of vanillin after as few as 7

combinations of the two odors.—*F. S. Keller* (Columbia).

[See also abstracts 5636, 5667, 5677, 5686, 5705, 5732, 5743, 5775, 5877, 5885, 5919, 5998, 6006.]

MOTOR AND GLANDULAR RESPONSES

(incl. Emotion, Sleep)

5830. *Asher, L., & Haller, M. Fortgesetzte Untersuchungen über das Verhalten des Zentralnervensystems der Säugetiere bei Sauerstoffmangel.* (Continued studies of the behavior of the central nervous system of mammals deprived of oxygen.) *Z. Biol.*, 1938, 98, 544-550.—The functional activity of the central nervous system was studied through the performing capacity of the breathing center with the aid of exact measurement of intake volume. When a solution of adrenalin and sugar was intravenously injected the center remained operative, although the oxygen content of the intake was only 4.2%. Thus extreme lack of oxygen may be offset by appropriate means.—*P. L. Krieger* (Leipzig).

5831. *Atzler, E. Arbeitsphysiologie. I. Teil.* (The physiology of work. Part I.) *Ergebn. Physiol.*, 1938, 40, 325-436.—A review of about 600 German and foreign contributions to the different aspects of the physiology of work.—*P. L. Krieger* (Leipzig).

5832. *Barcroft, J., & Mason, M. F. The atmosphere in which the foetus lives.* *J. Physiol.*, 1938, 93, 22-23P.—Figures are given for the oxygen saturation of the foetal circulation.—*M. A. Rubin* (Worcester State Hospital).

5833. *Bender, M. B. Fright and drug contractions in denervated facial and ocular muscles of monkeys.* *Amer. J. Physiol.*, 1938, 121, 609-619.—Facial, oculomotor, and trochlear nerves were cut in order to denervate corresponding facial muscles. Two weeks after denervation, anger or fright produced by threatening the animal with a stick, etc., caused contraction. The contraction was reproduced by acetylcholine and eserine. The fright reaction was augmented by eserine and inhibited by adrenine. Stimulation or section of the sympathetic did not affect the reaction, and it disappeared after regeneration. It is suggested that in fright a general discharge of both sympathetic and parasympathetic systems occurs, with resultant secretion of both adrenergic and cholinergic substances.—*T. W. Forbes* (Yale Bureau for Traffic Research).

5834. *Benzinger, T. Der Höhenflieger im Schutz der natürlichen Höhenanpassung.* (The high-altitude aviator in the protection of adaptation to altitude.) *Luftfahrtmedizin*, 1938, 2, 167-184.—*P. L. Krieger* (Leipzig).

5835. *Bieber, I., & Fulton, J. F. Relation of the cerebral cortex to the grasp reflex and to postural and righting reflexes.* *Arch. Neurol. Psychiat.*, 1938, 39, 434-454.—The grasp reflex varies with the position of the body in space, i.e., directly with the righting reflexes. The neck and labyrinth reflexes influence the grasp reflex to some extent, when the

former are present. The skin receptors are unessential for elicitation of the grasp reflex and evidently play little part in its ordinary production. Stretch of the digital tendons is the most effective stimulus for the grasp; after complete de-afferentation of the arm muscles, tension on the shoulder muscles serves to evoke the grasp in an animal exhibiting the thalamic reflex pattern. When the shoulder muscles have also been de-afferented, the grasp can be elicited by moving the animal rapidly through space. It is concluded that the grasp is an integral part of the reflex body-righting mechanism.—*W. Marshall* (Appleton Clinic, Wis.).

5836. *Bodo, R. C., & Benaglia, A. E. Hyperglycemia produced by sympathin in emotional excitement.* *Amer. J. Physiol.*, 1938, 121, 738-746.—Previous work has shown that sympathin is released on stimulation of the cardio-accelerator nerves, causing a rise in blood sugar. The problem in this study was whether sympathin from emotional excitement in the unanesthetized state would cause hyperglycemia. The right adrenal was removed in cats, and the left denervated and demedullated. The liver was denervated. Very slight hyperglycemia or none was obtained from excitement without struggle (barking of dog). More animals showed a slight hyperglycemia from excitement with struggle (5-15 minutes of struggle on cat board). This is attributed to the sympathin, since it was eliminated by complete sympathectomy.—*T. W. Forbes* (Yale Bureau for Traffic Research).

5837. *Bozler, E. Physiologie der Bewegung.* (Physiology of movement.) *Fortschr. Zool.*, 1937, N.F.I., 334-342.—*P. L. Krieger* (Leipzig).

5838. *Brandstätter, P. Über die Beziehungen zwischen den elektrischen und akustischen Vorgängen am tätigen Muskel.* (The relationship between electrical and acoustic processes in active muscle.) *Pflüg. Arch. ges. Physiol.*, 1938, 240, 348-351.—*M. A. Rubin* (Worcester State Hospital).

5839. *Brown, G. L., & Euler, U. S. v. The after effects of a tetanus on mammalian muscle.* *J. Physiol.*, 1938, 93, 39-60.—Brief tetanic stimulation of the motor nerve results in an increase of long duration in the twitch tension of the tibialis anterior and soleus muscles of the cat. This potentiation is observed independently of sympathetic innervation, and in muscle denervated or completely paralyzed by curarine. Close arterial injection of KCl gives the same result as tetanic stimulation. It is suggested that the potentiation is due to the mobilization of K ions liberated in the process of muscle contraction.—*M. A. Rubin* (Worcester State Hospital).

5840. *Brush, A. L. Attitudes, emotional and physical symptoms commonly associated with menstruation in 100 women.* *Amer. J. Orthopsychiat.*, 1938, 8, 286-301.—This is a study of mental and emotional changes as reported by college women, professional women, and physicians' wives. Material was gathered by the questionnaire method. The questions were related to age of menstrual onset,

regularity, frequency, and duration of periods. "Yes" and "No" answers are reported in terms of percentages and discussions are given in full. The results "indicate that the women showed variations which are probably within normal limits." It is felt that future studies on this phase of the problem will reveal a close relationship between constitutional make-up of women and "their attitude toward menstruation and its physical, mental and emotional effect on them."—S. W. Bijou (Delaware State Hospital).

5841. Carlson, W. S. Further studies in expressive movement. *Psychol. Rec.*, 1938, 2, 310-316.—"A group of 100 college men were tested on a variety of simple tasks such as weight and distance estimations, area preferences in freehand drawing of simple figures, and handwriting on large and small surfaces. When the scores based on simple quantifications were intercorrelated it was found that the performances tended to form diffuse clusters of experimentally dissimilar but logically related tasks. The average intercorrelations of these clusters, raised by the Spearman-Brown formula, were found to verify in general the results found by Allport and Vernon in a similar study."—P. S. de Q. Côté (Simmons).

5842. Collier, R. M. The crossed effects upon voluntary movement of unilaterally induced fatigue. *J. exp. Psychol.*, 1938, 23, 26-44.—In Part I of this study records were taken alternately of both right and left forearm rotations under two sets of conditions: (1) no initial fatigue of either side; (2) initial contralateral fatigue. Four S's each contributed 20 experimental periods. The 20 periods for a given S permitted 10 instances for each forearm to operate under each of the two sets of conditions, that is, in 10 trials the right arm movement preceded contralateral fatigue and in 10 trials the right arm movement was subsequent to contralateral fatigue. The same held for the left forearm. In Part II the apparatus was modified so that durations of each of the four components of reciprocal movement could be measured, i.e., the durations of the two reversals and two progressions. Records of right forearm rotations were taken under three sets of conditions: (1) no initial fatigue, (2) initial contralateral fatigue, and (3) initial ipsilateral fatigue. The results permit the following conclusions: (1) Contralateral fatigue modifies ipsilateral movements by reducing rate and increasing amplitude of forearm rotations. (2) Contralateral fatigue modifies the components of reciprocal movement by a slight decrease in progression time and a slight increase in reversal time. (3) Variability of reversal duration is more affected by both ipsilateral and contralateral fatigue than the progression duration. (3) Total movement is always less variable than the components of the movement.—H. W. Karn (Pittsburgh).

5843. Dantchakoff, V. Rôle des hormones dans la manifestation des instincts sexuels. (The role of hormones in manifestations of the sexual instincts.) *C. R. Acad. Sci., Paris*, 1938, 206, 945-947.—A genotypic female, testosterinized in the embryonic

state, can show a complete group of male organs which can be kept differentiated and can function correlatively. Likewise it has been found that a non-castrated male, folliculinized from the time of embryonic life, shows instincts which belong to the opposite sex.—G. Goldman (Sorbonne).

5844. Duyvenne de Wit, J. J. Die Reaktion des weiblichen und männlichen Bitterlings auf einige reine Sexualhormone. (The reaction of female and male bitterlings to some pure sex hormones.) *Klin. Wschr.*, 1938, 17, 376-378.—P. L. Krieger (Leipzig).

5845. Essen-Möller, E. Zur Theorie der Ähnlichkeitsdiagnose von Zwillingen. (The theory of similarity diagnosis of twins.) *Arch. Rass.- u. Gesbiol.*, 1938, 32, 1-10.—P. L. Krieger (Leipzig).

5846. Fontes, V. Contribuição para o estudo da precocidade sexual. (A contribution to the study of sexual precocity.) *Arch. Anat. Anthropol., Lisboa*, 1936-7, 18.—The author distinguishes between somatic, functional and psychic sexual precocity. He recognizes as true puberty praecox only those cases where early spermatogenesis or oogenesis occurs. 4 cases of this kind are presented and the etiology of these discussed.—D. Shallow (Worcester State Hospital).

5847. Freeman, G. L. Postural accompaniments of the voluntary inhibition of micturition. *J. exp. Psychol.*, 1938, 23, 45-61.—In this investigation the course of inhibition of micturition was studied for several days under each of the following three procedures: (1) subjects resting quietly through the entire period of voluntary inhibition, (2) subjects asleep, (3) subjects engaged in activity between hourly readings. Postural reflections of the course of inhibition were obtained by recording palmar skin resistance and electromyograms from the abdominal and perineal musculature. A comparison of the three subjects who took part in all experiments suggests that equivalent amounts of urine can be retained longer during quiet rest than during moderate physical exercise. Longer periods of inhibition usually obtain for the rest condition than during sleep. If the subject rests quietly following water intake, he is generally able to withstand an extensive series of vesical changes to gradually increasing volume. The general level of postural activity is higher than during sleep, but lower than during moderate physical work. The extent to which the findings shed light on the cortical and subcortical mechanisms controlling micturition is discussed.—H. W. Karn (Pittsburgh).

5848. Freeman, G. L. The postural substrate. *Psychol. Rev.*, 1938, 45, 324-335.—Response to external stimulation is not strictly phasic in character but is superimposed on tonic patterns of activity. They include skeletal muscle tensions, visceral tensions and postural changes in smooth muscle tissue, and finally the secretions of endocrine glands. Kempf initiated this theory. Some of the methods of studying energy mobilization and dynamogenic activities of the postural substrate are blood pressure, mechanical or electrical measurement of skeletal

muscle tension, electromyograms, palmar skin resistance, electro-encephalograms, and, least satisfactory, biochemical measures. The problems of reaction dynamics in which the postural substrate is especially involved are (1) those concerned with the limits of optimal reactivity in different types of performance, (2) those relating variations in physiological reactivity to the quality and quantity of performance in the same individual, and (3) those dealing with individual differences in reactivity and performance.—*A. G. Bills* (Cincinnati).

5849. Gellhorn, E., Ingraham, R. C., & Moldavsky, L. The influence of hypoglycemia on the sensitivity of the central nervous system to oxygen want. *J. Neurophysiol.*, 1938, 1, 301-312.—Lowering of the blood sugar by insulin augments the blood pressure rise caused by inhalation of 6.2% oxygen. Glucose reverses the low oxygen effect; fructose is less efficient, and galactose is ineffective.—*M. A. Rubin* (Worcester State Hospital).

5850. Gemelli, A. Neuere Beiträge der italienischen Forschung zur Psychophysiologie des Flugwesens. (Recent contributions of Italian studies on the psychophysiology of flight.) *Wien. klin. Wschr.*, 1936, No. 17, 1-16.—The author considers the effect of altitude and of acceleration during flight. Only a few people can support for a few seconds a vertical acceleration of 5 g. Even a very short acceleration of 8 g causes loss of consciousness; one of 12 g brings on organic lesions and ruptures. For horizontal accelerations with head protection most people can support 3 g. Slight disturbances can be provoked by intermittent horizontal accelerations, even when feeble. The author concludes that the actual conditions of airplane flight are near the limit of psychophysiological resistance.—(Courtesy *Année psychol.*).

5851. Geyer, H. Über den Schlaf von Zwillingen. (Concerning the sleep of twins.) *Z. indukt. Abstamm.- u. Vererb. Lehre*, 1937, 73, 524.—*P. L. Krieger* (Leipzig).

5852. Gottschaldt, K. Zur Methodik erbpsychologischer Untersuchungen in einem Zwillingslager. (The methodology of genetic-psychological investigations in a twin problem.) *Z. indukt. Abstamm.- u. Vererb. Lehre*, 1937, 73, 518.—*P. L. Krieger* (Leipzig).

5853. Guliak, P., Kafieva, E. A., & Lantoch, A. D. [Effect of experience on blood composition and the lactic acid content.] *Fiziol. Zh. S. S. S. R.*, 1936, 20, 602-609.—Two months of training decreased the incidence of lactic acid in the blood after work, but produced little alteration in the effect of work on blood composition.—*H. E. Burt* (Ohio State).

5854. Heinze, E. Endokrine Störungen. (Endocrine disturbances.) *Fortschr. Neurol. Psychiat.*, 1938, 10, 324-336.—A short article concerned with disorders of the pituitary, gonadal and thyroid glands, as well as the interrelationships between glandular and nervous disturbances. Bibliography.—*D. S. Oberlin* (Delaware State Hospital).

5855. Hempel, J. Versagen mit unbestimmtem Krankheitsgefühl bei organischem Leistungsabbau. (Failure to react with indefinite feelings of sickness in organic disturbance of performance.) *Dtsch. med. Wschr.*, 1937, 63, 1770.—*P. L. Krieger* (Leipzig).

5856. Holmes, G. The cerebral integration of the ocular movements. *Brit. med. J.*, 1938, Part 2, 107-112.—*W. J. Brogden* (Johns Hopkins).

5857. Hunt, W. A., & Flannery, J. Variability in the affective judgment. *Amer. J. Psychol.*, 1938, 51, 507-513.—14 college girls were presented with Milton Bradley colors and asked to judge their affective value. Different numbers of S's served in different series. 3, 6, 9, or 12 colors were used per series, and 5 or 10 presentations of each color were made per experimental session. S's were asked to judge at different times on a 3-, 5-, or 7-point scale. Variability (defined as a change in the category of report used in making the judgment) was found to increase when: (1) the number of colors in the series, or (2) the number of categories in the judgment scale, was increased. Within a single series, repetition decreased variability. These results are interpreted as indicating that judgment and learning play a part in affective response.—*D. E. Johannsen* (Skidmore).

5858. Huxley, J. S., & Hewer, H. R. Heredity in animals. (Sound film.) London: Gaumont-British Instructional Films Bureau, 1937. 700 feet, 16 mm. Sale price on request to Film House, Wardour St., W. 1.—This two-reel talking film provides a survey of the mechanism and principles of heredity. The first reel shows the cell nuclei at the time of condensation of chromatin and the formation of chromosomes. The processes of mitosis, meiosis, and the formation of the zygote are illustrated graphically. Actual photographs of animals and animated diagrams of gametes and zygotes are employed to illustrate Mendel's laws of segregation and dominance. In the second reel the independent segregation of more than one pair of genes involved in a cross is shown by crossing long-haired albino rabbits with short-haired black ones. When two allelomorphous pairs affecting the same structure are present, gene interaction occurs. The film shows that rose-combed fowls crossed with pea-combed fowls produce walnut-combed birds. The film ends with some examples of selective breeding in dogs and horses.—*L. F. Beck* (Oregon).

5859. Huxley, J. S., & Hewer, H. R. Heredity in man. (Sound film.) London: Gaumont-British Instructional Films Bureau, 1937. 518 feet, 16 mm. Sale price on request to Film House, Wardour St., W. 1.—This talking picture, produced in collaboration with the Eugenics Society of England, is designed as a supplementary reel to *Heredity in Animals*, and brings Mendelian genetics into relation with human affairs. Several family pedigrees are analyzed to show favorable inheritance of physique, musical talent and artistic abilities. These pedigrees are contrasted with another in which a large share of the offspring are either feeble-minded or crippled. The film ends with a plea for the application of

genetic principles in an effort to maintain the race at a satisfactory level of mental and physical fitness.—*L. F. Beck* (Oregon).

5860. *Jordan, H. J.* Die Physiologie des Tonus der Hohluskeln, vornehmlich der Bewegungsmuskulatur "hohlorganartiger" wirbelloser Tiere. (The physiology of tonus of hollow musculature, particularly the muscles controlling movement of the "hollow-organ-like" invertebrates.) *Ergebn. Physiol.*, 1938, **40**, 437-533.—Muscle is the most important indicator for the processes in the central nervous system. In order to make use of it, however, we must know the functions of the muscle. Perhaps this will be possible at an earlier date in the case of hollow muscles than in striped muscles, because the function of specific tonus centers is decidedly simpler and more extensive than that of the centers controlling the movement.—*P. L. Krieger* (Leipzig).

5861. *Jores, A.* Endokrine Korrelationen. (Endocrine correlates.) *Klin. Wschr.*, 1937, **16**, Abt. 2, 1777-1779.—The total correlates of the endocrine system are set up by the glandular hormone of the anterior lobe of the hypophysis. Since the hypophysis maintains an equilibrium with the midbrain, the activity of any endocrine gland is regulated both humorally and neurally.—*P. L. Krieger* (Leipzig).

5862. *Jugert, G.* Über die erhöhte seelische und körperliche Anfälligkeit der Frau zur Zeit der Menstruation. (The heightened mental and physical susceptibility of women at the time of menstruation.) Berlin: F. Linke, 1938. Pp. 23.—*R. R. Willoughby* (Brown).

5863. *Jung, R., Doupe, J., & Carmichael, E. A.* Shivering: a clinical study of the influence of sensation. *Brain*, 1937, **60**, 28-38.—By blowing ice-cooled air on naked subjects it is possible to provoke shivering without lowering the blood temperature. Supplementary evidence indicates that sensory impulses are the effective cause of shivering even under conditions in which the blood temperature falls.—*D. G. Marquis* (Yale).

5864. *Karady, S., Browne, J. S. L., & Selye, H.* The effect of the alarm reaction on water excretion. *Quart. J. exp. Physiol. cognate med. Sci.*, 1938, **28**, 23-31.—The authors use the term "alarm reaction" to describe the syndrome produced in an organism by noxious agents such as excessive exercise, cold, drugs, etc., when the organism is for the first time subjected to such stimuli and when the stimuli are of a quality or intensity such that the organism is not adapted to them. The present experiments show that the alarm reactions produced in rats by various agents decrease the urine output, but if during the course of an alarm reaction the same or another stimulus is given to the organism again, the urine output is increased. Two alarm reactions cannot be elicited in rapid succession even if the second stimulus is a different alarming agent.—*L. Carmichael* (Tufts).

5865. *Kassler, O. H.* Beobachtungen und Untersuchungen der Bewegungsvorgänge beim laufenden Menschen. (Observations and investigations on the

order of movement in human running.) Berlin: (Phil. Diss.), 1936. Pp. 43.—*P. L. Krieger* (Leipzig).

5866. *Lange, J.* Über die Grenzen der Umweltbeeinflussbarkeit erblicher Merkmale beim Menschen. (The limits of environmental influence on hereditary characteristics in human beings.) *Z. indukt. Abstamm.- u. Vererb. Lehre*, 1937, **73**, 489-507.—*P. L. Krieger* (Leipzig).

5867. *Lawton, G.* Fears: their cause and prevention. *Child Developm.*, 1938, **9**, 151-159.—Fears found in children are simple; adult fears are complex. The first class of fears is the "conditioned" fears. Pavlov's and Watson's work is described. The second class of fears is said to be those "which are the aftermath of unpleasant experiences." Instances are cited, and ways to lessen the fear are discussed. Another and the largest class of fears is those "acquired through direct imitation of those who are afraid." Fears "concerning one's importance in the social group" constitute the fourth class, and neurotic fears or phobias make up the fifth class. Anxiety is the most serious of the neurotic fears. Ways to meet all these fears are mentioned, usually involving the encouragement of "full discussion of all phases of the fear."—*C. N. Cofer* (Brown).

5868. *Lehmann, G., & Szakall, A.* Die Bedeutung des Flüssigkeits und Chlorersatzes für die Leistungsfähigkeit des Hitzarbeiters. (The significance of the absorption of liquids and chlorides for efficiency of workers at high temperatures.) *Arbeitsphysiologie*, 1937, **9**, 630 ff.—Studies with the bicycle ergometer under high temperature. Ingestion of water increases efficiency; salt water is not as effective.—*H. E. Burt* (Ohio State).

5869. *Lehmann, G., & Szakall, A.* Der Chlorstoffwechsel bei Hitzarbeit. (Chlorine metabolism and work at high temperatures.) *Arbeitsphysiologie*, 1937, **9**, 653-677.—Decrease of chlorine through diet did not unfavorably affect results on a bicycle ergometer operated under high temperature.—*H. E. Burt* (Ohio State).

5870. *Lehmann, G., & Szakall, A.* Anpassungserscheinung an Hitzarbeit. (Adaptation phenomena during work at high temperatures.) *Arbeitsphysiologie*, 1937, **9**, 678-705.—Adaptation manifests itself in such things as reduction of metabolism and oxygen debt, increased capacity for work, and greater respiratory quotient.—*H. E. Burt* (Ohio State).

5871. *Lynn, J. G., & Lynn, D. R.* Face-hand laterality in relation to personality. *J. abnorm. soc. Psychol.*, 1938, **33**, 291-322.—398 individuals were observed for lateral asymmetry of the face while smiling involuntarily. About one-fifth showed a well-defined lateral hyperactivity. These were divided into two groups: those with right-handed and right-faced or left-handed and left-faced dominance, and those with contralateral hand-face dominance. In studying the personalities of the members of these two groups, it was found that the ipsilateral hand-face dominance persons tended to

be aggressive, self-confident, dominating, etc., whereas the contralateral hand-face dominance subjects were shy, retiring and subservient. The conclusion is that the functional relation between hand-dominance and clear-cut lateral dominance of involuntary facial expression serves as an indicator of a natural and hence a fundamental dichotomy of personality.—C. H. Johnson (Boston Psychopathic Hospital).

5872. Marchak, M. E. [Effect of external excitation on involuntary work.] *Gig. Bezopas. Trud.*, 1936, 2, 22-29.—Cutaneous thermal stimulation affects the fatigue curve for flexors activated electrically. Visual stimulation increases the amplitude of the contractions.—H. E. Burt (Ohio State).

5873. Mason, M. F., Kennedy, J. A., & Barcroft, J. Direct determination of foetal oxygen consumption. *J. Physiol.*, 1938, 93, 21-22P.—A method for determining the oxygen uptake of the foetus.—M. A. Rubin (Worcester State Hospital).

5874. Miklós, A. Über einen Fall von willkürlichen Nystagmus. (A case of voluntary nystagmus.) *Klin. Mbl. Augenheilk.*, 1938, 100, 186.—The author reports a case of nystagmus that can be elicited by command for shorter or longer periods in otherwise non-roving eyes. With Raehlmann he differentiates pendular, jumping, and irregular nystagmoid jerks. Voluntary nystagmus is not pathological; it is rather an acrobatic feat subject to learning and practice in childhood. Its amplitude is from 1 to 2 mm., with 200 to 1000 rhythmical jerks per minute, continuing for 15 to 20 seconds. The author reviews theories of the origin of nystagmus and adheres to Brückner's. The eye muscles are in a state of tetany during nystagmus, receiving oscillating innervation. Hence the feeling of muscle strain in the eyes and throughout the body during an episode.—P. L. Krieger (Leipzig).

5875. Müller, E. A. Die Abhängigkeit des Arbeitsmaximums von der Leistung bei verschiedenen Personen. (The dependence of work maximum on performance in different persons.) *Arbeitsphysiologie*, 1938, 10, 67-73.—(*Biol. Abstr.* XII: 6430).

5876. Papez, J. W. A proposed mechanism of emotion. *Arch. Neurol. Psychiat.*, Chicago, 1937, 38, 725-743.—From anatomical, clinical, and experimental evidence the author proposes that the hypothalamus, the anterior thalamic nuclei, the gyrus cinguli, the hippocampus, and their interconnections constitute a harmonious mechanism which may elaborate the functions of central emotion, as well as participate in emotional expression. Although these structures are usually represented as dealing with some phase of the olfactory function, there is no clinical or other evidence to support that view. The new interpretation meets adequately the physiological requirements of the results of Cannon and Bard, and is also in agreement with the observation of Dandy that the seat of consciousness is located somewhere near the midline, between

the limits set by the corpus callosum and the basal structures of the brain.—D. G. Marquis (Yale).

5877. Peters, H. N. Experimental studies of the judgmental theory of feeling. I. Learning of positive and negative reactions as a determinant of affective judgments. *J. exp. Psychol.*, 1938, 23, 1-25.—Three different groups of college students ranked 10 Japanese words in order of preference under 3 conditions: before and after a learning problem, before and after a rest interval, and after a learning problem. The learning problem consisted in learning to pronounce the 5 least preferred words and not to pronounce the 5 most preferred words. The words appeared in the window of a memory drum. Treatment of the results in terms of mean rank orders clearly shows a tendency to invert the affective orders of the 2 sets of words after learning.—H. N. Peters (Univ. Missouri).

5878. Piéron, H. Quelques problèmes relatifs à l'analyse du temps de latence de la rétraction siphonale chez la mye. (Some problems relative to the analysis of latency time in siphon retraction in the clam.) In Various, *Mélanges Jean Demoor*. Paris: Masson, 1937. Pp. 407-420.—Three response modalities in the siphon reflex can be observed in the intact *Mya*: closing of the siphon, retraction by jerks, and retraction at the base of the siphon. The author studied this complex phenomenon with the help of electrical, chemical, and mechanical stimulation on the intact *Mya*, *Mya* with the end of the siphon amputated, and detached siphons. He concludes that there is a central mechanism for liminal stimuli, while in the case of stronger stimuli this mechanism is supplemented by a switching of impulses by means of ganglia interposed on the afferent pathway, a condition which brings about a quicker local response.—G. Goldman (Sorbonne).

5879. Ramberg, H. Über die Dehnbarkeit von Froschmuskeln in Kontraktur und Tetanus. (The elasticity of frog muscle in contracture and tetanus.) *Pflüg. Arch. ges. Physiol.*, 1938, 240, 329-341.—During contracture muscle resists shortening or lengthening. Elasticity of the muscle is independent of the frequency (30-100/sec.) of electrical stimulation.—M. A. Rubin (Worcester State Hospital).

5880. Rynearson, E. H., & Hodgson, C. H. Recent advances in knowledge of anterior lobe of the hypophysis. *Arch. intern. Med.*, 1938, 62, 160-176.—W. J. Brogden (Johns Hopkins).

5881. Sartorius, F., Mänicke, R., & Gemecke, A. Studien über Steuerung und individuelles Verhalten der Hauttemperatur bei klinisch gesunden Personen. (Studies on the regulation and individual behavior of skin temperature in clinically healthy persons.) *Arch. Hyg.*, 1938, 119, 271-288.—P. L. Krieger (Leipzig).

5882. Schmidt, G. A. Über die Unterschiede in den Induktionsfähigkeiten des Organisationszentrums der Urodelen und Anuren. (The difference in the induction ability of the centers of organization of Urodela and Anura.) *Zool. Anz.*, 1936, 116, 323.—P. L. Krieger (Leipzig).

5883. **Schneider, E. C., & Collins, R.** Venous pressure responses to exercise. *Amer. J. Physiol.*, 1938, 121, 574-579.—19 men between 19 and 24 years of age worked for 15-minute periods on a bicycle ergometer (4000, 6000, and 8000 ft.-lbs. per min.). Venous pressure rose to a maximum in from 2 to 4 minutes in some and from 10 to 12 minutes in other subjects. From that time on it remained constant. When the work was too heavy the rise was continuous, to the point of fatigue.—*T. W. Forbes* (Yale Bureau for Traffic Research).

5884. **Schwerin, O. v.** Untersuchungen über den Entlastungsreflex des Menschen. (Investigations concerning the discharge reflex of human beings.) *Dtsch. Z. Nervenheilk.*, 1936, 140, 240.—*P. L. Krieger* (Leipzig).

5885. **Shaw, W. A.** The distribution of muscular action potentials during imaging. *Psychol. Rec.*, 1938, 2, 195-216.—An increase in muscular potentials is reported in all of the muscle groups tested during the imaging of such tasks as squeezing a hand dynamometer, typing, singing, and playing a wind instrument. "There is no good evidence of localization to the muscle groups commonly thought to be involved in such performances. While such action potentials seem to be necessarily concomitant, as shown by the report of the unsuccessful subjects and the control groups, they are not localized in any particular part of the body, nor are they exclusively peculiar to imaging, since other workers have shown that action potentials accompany other implicit activities. The distribution of these potentials seems to indicate that during the revival of vestigial responses one can expect to be present any muscular activity that accompanied the original response."—*P. S. de Q. Cabot* (Simmons).

5886. **Snyder, F. F., & Rosenfeld, M.** Intra-uterine respiratory movements of the human fetus. *J. Amer. med. Ass.*, 1937, 108, 1946.—Respiration is not initiated in the child at birth. The human fetus shows spontaneous respiratory movements for periods lasting many minutes and extending far back into embryonic life. Respiratory failure of the newborn must be regarded as suppression of previous activity rather than failure of a new mechanism to begin functioning at birth. In the apneic newborn child it is a question of what factors have been superimposed to suppress the continuation of respiratory movements. The fetal respiratory system before birth has a peculiar sensitivity to the depressant effect of anoxemia and narcosis. Both of these belong to the period preceding delivery. Efforts should be made to maintain adequate oxygenation and caution is in order in the choice and use of anesthetic agents. The importance of the quality of the amniotic fluid for the normal development of the alveoli is emphasized.—*J. P. Robertson* (Brown).

5887. **Strughold, H.** Die Höhenwirkung im Licht nervenphysiologischer Betrachtung. (The effect of altitude in the light of neural physiology.) *Luftfahrtmedizin*, 1938, 2, 208-222.—The writer

presents reflex-physiological studies of experiments with increasing altitude, leading at first to local and later to general cramps at the highest limit.—*P. L. Krieger* (Leipzig).

5888. **Thomas, C. B.** The cerebral circulation. XXXI. Effect of alcohol on cerebral vessels. *Arch. Neurol. Psychiat., Chicago*, 1937, 38, 321-339.—Alcohol causes dilatation of the pial arteries of cats and rabbits, increasing the flow of blood through the brain. This effect is independent of changes in the systemic arterial pressure, which may fall or rise or remain unchanged.—*D. G. Marquis* (Yale).

5889. **Tsukamoto, H., Nayami, H., & Tsunematsu, K.** Beiträge zur Kenntnis des Schnarchens. (Contribution to the knowledge of snoring.) *Mtschr. Ohrenheilk.*, 1938, 72, 79-93.—Various forms of snoring are differentiated. Equal auditory stimulation of snoring and non-snoring sleepers shows that sleep is ordinarily deeper for non-snorers.—*P. L. Krieger* (Leipzig).

5890. **Umrath, K.** Über den Erregungsvorgang und sonstige reizbedingte Veränderungen in der Oberepidermis der Zwiebelschuppen von *Allium cepa*. (The process of excitation and other stimulus-conditioned changes in the epidermis of the bulb-scales of the onion.) *Protoplasma*, 1937, 28, 345-351.—*P. L. Krieger* (Leipzig).

5891. **Wajzer, J.** Aspects biochimiques de la fatigue musculaire. (Biochemical aspects of muscular fatigue.) *Travail hum.*, 1938, 6, 197-202.—A review of research on the chemistry of fatigue, especially the disposition of lactic acid; also of studies of respiration and circulation during fatigue.—*H. E. Burt* (Ohio State).

5892. **Winsor, A. L., & Korchin, B.** The effect of different types of stimulation upon the pH of human parotid secretion. *J. exp. Psychol.*, 1938, 23, 62-79.—In a series of experiments variations in the pH of parotid secretion and rate of flow were determined under a number of conditions and with various secretagogic agents. The data indicate a definite parallel relationship between pH and secretory rate of parotid secretion. The more rapidly flowing secretions were more alkaline, whereas the slower rates were associated with a more acidic secretion. Regardless of the nature of the secretagogic agent used, the pH paralleled the rate of flow. The degree of acidity or alkalinity remained constant provided the rate was uniform, even though olfactory, gustatory, proprioceptive, or summated stimulation was used. If one gland were activated more than the other, the pH of the more active gland was higher than that of the less active. In studies of the effect upon pH of prolonged mental activity, fatigue, sleep, or any state in which the glands are less active, the secretion was found to be more acidic than that secreted during the normal resting state. In conditions of good health, good appetite, etc., the more abundant secretion that is associated with these states has been found to be more alkaline than the average normal secretion. A

possible relation between these data and reported studies of dental decay and nervous upset is suggested.—*H. W. Karn* (Pittsburgh).

5893. **Witz, H.** Fortgesetzte Untersuchungen über den Unterschied zwischen natürlichen und künstlichen Reizen am Froschherzen. (Continued study of the difference between natural and artificial stimuli in the frog's heart.) *Z. Biol.*, 1938, **98**, 551-560.—Under closely restricted local anesthetic the auricle loses its capacity to respond to artificial, but not to natural, stimuli, since the chamber continues to beat as before. Studies made by means of action currents of single parts of the heart lead to similar results. A phase of local anesthesia may be reached in which the artificial excitability of the sinus completely disappears, although the heart still responds before and afterwards to natural stimuli proceeding from the sinus. These facts confirm the basic differences between natural and artificial stimuli.—*P. L. Krieger* (Leipzig).

5894. **Zawadski, B.** Nachweis anodischer Lokalisation der erholenden Wirkung einer Gegendurchströmung beim direkt gereizten Frostmuskel. (Demonstration of anodal localization of the recovery effect of a reverse current in directly stimulated frog muscle.) *Pflüg. Arch. ges. Physiol.*, 1938, **240**, 325-328.—*M. A. Rubin* (Worcester State Hospital).

[See also abstracts 5632, 5665, 5678, 5679, 5682, 5700, 5706, 5709, 5712, 5715, 5717, 5726, 5742, 5743, 5768, 5796, 5811, 5821, 5826, 5914, 5920, 5924, 5931, 5967, 5968, 6005, 6026, 6043, 6063, 6134.]

PSYCHOANALYSIS, DREAMS, HYPNOSIS

5895. **Alverdes, F.** Tiefenpsychologie und Tierpsychologie. (Depth psychology and animal psychology.) *Forsch. Fortschr. dtsch. Wiss.*, 1938, **14**, 119-120.—Alverdes gives examples of relations in the animal world (spiders, etc.) which he considers as the bases of the archetypes in the collective unconscious of man; e.g., "the pattern characteristic of the species," sex partners, "member of the species and herd." As to the relation to v. Uexküll's theory of "function circles," Alverdes points out by means of these examples that the function circles of food, enemy, sex partner, offspring, course of life, and home must in every case correspond in their way to a special archetype.—*J. Deussen* (Haina).

5896. **Bleuler, E.** Bewusstheit und Unbewusstes. (Consciousness and the unconscious.) *Scientia, Milano*, 1938, **63**, 144-156.—Bleuler divides consciousness into the abstract quality of awareness of self and the faculty of conscious experiencing of events. Referring to the theories of Rignano and Ranschburg without fully accepting them, he believes that psychic occurrences become conscious only through their association with the ego-complex. Hence a great number of psychic occurrences—not only the suppressed ones (Freud)—remain unconscious. The process causing either an association

with or a dissociation from the ego-complex he assumes to develop from the power of memory, called mneme, and to take place not only in higher but also in lower neurological centers. The purposefulness of all phenomena originating in the functioning of the mneme explains the correlation between the psychic and physical spheres.—*E. Franzen* (Progressive Education Association).

5897. **Erickson, M. H.** Development of apparent unconsciousness during hypnotic reliving of a traumatic experience. *Arch. Neurol. Psychiat.*, Chicago, 1937, **38**, 1282-1288.—The patient was trained to enter profound somnambulistic hypnotic trances, during which, by means of suggestion, he was reoriented to an earlier period of his life. In the course of reliving the experience of a homicidal assault, the patient passed into a state of unconsciousness. In spite of contrary suggestions, he had a complete amnesia for the events of the trance. It is concluded that hypnosis can be employed to produce significant personality-situation changes, as evidenced by the definite psychic and somatic effects produced by the reorientation to and the reliving of a past experience as a current process.—*D. G. Marquis* (Yale).

5898. **Goldstein, J.** Mechanism and psychoanalytic theory. *Amer. J. Orthopsychiat.*, 1938, **8**, 192-213.—The term "mechanistic" is discussed according to its varied meanings, and is defined for the purposes of the paper. Mechanistic postulates are found to be consistent with the basic tenets of the psychoanalytic theory.—*S. W. Bijou* (Delaware State Hospital).

5899. **Grossschopf, E. v.** Schlaf und Traum. (Sleep and dreaming.) *Psychiat.-neurol. Wschr.*, 1937, **39**, 297-299.—In the night our true ego, which we have condemned to sleep during our waking life, awakens. A treatment of insomnia or of dream-disturbed sleep with narcotics is not in order, for the material stored up in the unconscious is striving for relief and cannot be treated with force.—*P. L. Krieger* (Leipzig).

5900. **Nunberg, H.** Psychological interrelations between physician and patient. *Psychoanal. Rev.*, 1938, **25**, 297-308.—Psychoanalysis shows that the relationship between the physician and the patient is very important. The physician is more than just a professional man and is endowed with superhuman qualities, becomes omnipotent, and has the power of life and death in the sense of being a priest or a magician. The patient not only admires and worships the physician but also fears him. In sickness the patient goes through a regression and adopts the physician in the same way that he adopted his parents in childhood. This is the mechanism of transference in a particular relationship. Transference in this particular instance also results in an unreal situation. The childhood play of being a doctor illustrates how the child wants to be omniscient, to be allowed to see and know everything in order to expiate a feeling of guilt. Subjecting oneself to the

physician has the same significance; in other words, to avoid being castrated by the father, or at least because he has a fear of hurt or castration, the boy identifies himself with the father substitute, who is in this case the physician. These mechanisms indicate why some men wish to become physicians. It also illustrates why the proper relationship between physician and patient is a mutually satisfying one.—*L. S. Selling* (Recorder's Court, Detroit).

5901. **Stekel, W.** *Die Technik der analytischen Psychotherapie.* (The technique of analytic psychotherapy.) Berne: Haber, 1938. Pp. 317. SFr. 20.—Stekel gives in this book (the first of its kind) the results of his 30 years' experience. It is an extensive exposition of the subject from the first session to the end of treatment. The discussion includes: the various forms of resistance; transference; the analyst's family; the relations between character and psychotherapy; dreams; analytic shock; the various aids to treatment; and child analysis. One chapter takes up the psychology of the obsessive diseases and pain phenomena. The end of treatment offers a summary of all the problems.—*W. Stekel* (London).

5902. [Various.] *Almanach der Psychoanalyse, 1938.* (Almanac of psychoanalysis, 1938.) Vienna: Psychoanalytischer Verlag, 1938. Pp. 256. RM 4.—This volume contains three articles by Freud: *Moses the Egyptian* (from *Imago*), an extract from a longer work now in press (*If Moses was an Egyptian*), and part of an article to appear this year tracing the relationships between the teaching of Empedocles and psychoanalysis. Among other contributors are Schilder, Meng, Glover, Pichon, Bornstein, Wälder, Deutsch, Stengel, Wittels, Sterba, and Christoffel. There is also a posthumous paper of Ferenczi, *Psychoanalysis and Criminology*.—*J. Deussen* (Haina).

5903. **Völgyesi, F.** *Psychokonstitution und Hypnophilie.* (Psychic constitution and propensity for sleep.) *Psychiat.-neurolog. Wschr.*, 1937, 39, 531-534.—*P. L. Krieger* (Leipzig).

5904. **Winterstein, A. v.** *Telepathie und Hellsehen im Lichte der modernen Forschung und wissenschaftlichen Kritik.* (Telepathy and clairvoyance in the light of modern investigation and scientific criticism.) Amsterdam-Leipzig: Tiefland Verlag, 1937. Pp. 244. RM 3.80.—This book is based on lectures given at the Urania Volkshochschule in Vienna. The contents comprise: varieties of parapsychic phenomena; spontaneous and experimental telepathy, including the experiments of Rhine, Bender, and others; mind reading, psychometry and clairvoyance; the concept of the unconscious and automatisms, especially psychomotor; the psychology of mediums; fraud; the three parapsychological theories (animism, spiritualism, and the James-Osty theory); the relationship between parapsychology and psychoanalysis; and the attitude of academic science to parapsychology. Comprehensive bibliography.—*A. v. Winterstein*.

[See also abstracts 5812, 5908, 6016, 6054, 6084.]

FUNCTIONAL DISORDERS

5905. **Alpers, B. J.** *Relation of the hypothalamus to disorders of personality.* *Arch. Neurol. Psychiat.*, Chicago, 1937, 38, 291-303.—Report of a case of tumor involving the hypothalamus. There were severe changes in personality and in mood.—*D. G. Marquis* (Yale).

5906. **Altenkämper, E.** *Psychosen nach Kastration beim weiblichen Geschlecht.* (Psychoses following castration in females.) *Bottrop i. W.*: Postberg, 1937. Pp. 42.—*R. R. Willoughby* (Brown).

5907. **Anderson, E. W.** *A clinical study of states of "ecstasy" occurring in affective disorders.* *J. Neurol. Psychiat.*, 1938, 1, 80-99.—*W. J. Brogden* (Johns Hopkins).

5908. **Bennet, E. A.** *The use of dreams in psychotherapy.* *Ment. Hyg., Lond.*, 1938, 4, 65-69.—*R. R. Willoughby* (Brown).

5909. **Benoist, E.** *De la thérapeutique convulsivante de la schizophrénie à l'aide du pentaméthylénététrazol (cardiazol).* (On convulsive therapy in schizophrenia with pentamethylenetetrazol (cardiazol).) Paris: Vigné, 1938. Pp. 166.—*G. Goldman* (Sorbonne).

5910. **Bluemel, C. S.** *The troubled mind.* Baltimore: Williams & Wilkins. Pp. 520. \$3.50.—The author explains nervous and mental illness largely on the basis of stimulus-response. The organism responds not merely to a stimulus, but also from a stimulus. The from-reaction is not merely an avoidance reaction, but a psychosomatic reaction, in which the body participates as well as the mind. Nervous illness may occur not merely as a reaction to psychic trauma, but as a reaction to the stress of life itself. The stimulus is not always a conscious stimulus; in convulsive seizures the reaction may occur, for instance, when the urinary bladder becomes over-distended in a body which is anesthetic from spinal cord injury. The psychosomatic stress reaction is sometimes induced by pleasurable rather than painful stimuli; this occurs when the intensity of the stimulus exceeds the tolerance of the organism. Over-reaction explains many nervous illness. Mania is an excessive tendency to the to-reaction; melancholia an excessive tendency to the from-reaction. The normal individual balances response and inhibition. The presentation is in non-technical language.—*C. S. Bluemel* (Denver, Colo.).

5911. **Bostack, J.** *How civilization manufactures neuroses; a survey of 200 consecutive cases.* *Med. J. Aust.*, 1938, 1, 444-448.—*R. R. Willoughby* (Brown).

5912. **Braun, E.** *Die neurasthenische Reaktion.* (The neurasthenic reaction.) *Handb. d. Neurol.*, 1935, 17, 426-476.—The author presents the pathogenesis, etiology, and symptomatology of the neurasthenic reaction. The bodily and mental state of weakness present in the n. r., which is brought about by constitutional factors, especially through endogenous nervousness, forms a state of general vital weakness in resistance. This increases sus-

ceptibility to bodily and mental diseases, and to infections (Birnbau). In the mental realm there is danger of psychogenic reaction. The neurasthenic syndrome often becomes the precipitating cause through which the psychogenic reaction comes to serve as a welcome gateway to ruin. The psychogenic reaction, caused by and formed from strong affective impulses, may lead to characteristic further developments of neurasthenic symptoms. In their duration they recede more and more behind the psychogenic syndrome and finally are used only occasionally by it as a means of expression.—P. L. Krieger (Leipzig).

5913. Brugger, C. Psychiatrische Bestandesaufnahme im Gebiet eines medizinisch-anthropologischen Zensus in der Nähe von Rosenheim. (Psychiatric survey in the field of a medical and anthropological census in the neighborhood of Rosenheim.) *Z. ges. Neur. Psychiat.*, 1937, 160, 189-207.—In 1931-1932 all the inhabitants (3203) of six communities were given careful physical and mental examinations. Mental abnormalities appeared in 3.46% of the cases. Mental disease in the narrow sense (psychopaths, alcoholics, and feeble-minded being excluded) were found in only 0.62% of the subjects. Relatively few of the abnormal individuals were married, this being due especially to feeble-mindedness in childhood. The most frequent psychoses were schizophrenia and senile dementia. Statistical summaries are given.—C. W. Fox (Rochester).

5914. Büsow, H., & Essen, K. W. Über den galvanischen Hautreflex bei endogener Depression. (The galvanic skin reflex in endogenous depression.) *Mscr. Psychiat. Neurol.*, 1935, 90, 326.—P. L. Krieger (Leipzig).

5915. Chesher, E. C. Aphasia. I. Technique of clinical examinations. *Bull. neurol. Inst., N. Y.*, 1937, 6, 134-144.—The requirements, materials, and techniques of an adequate examination of the language mechanism of patients suffering from the acute phase of aphasia are presented.—D. G. Marquis (Yale).

5916. Cohen, L. H. Imagery and its relation to schizophrenic symptoms. *J. ment. Sci.*, 1938, 84, 284-346.—Using as test material a list of 130 words and phrases, the imagery of schizophrenic patients was subjected to detailed study, and the results correlated with clinical findings. Comparisons were made with normal controls. Conclusions are that in schizophrenics the imagery tends to be predominantly kinesthetic or tactual-temperature; that there is greater variability of imagery than among normals; that the relation of imagery to type of hallucination varies with the specific modalities; that the types of delusion and of disturbance of motor activity are related to the specific preponderance of certain imagery modalities; and that the total symptom picture is related to specific imagery backgrounds. Possible interpretations of these findings are discussed, and two types of schizophrenic process, active and passive, are discriminated.

Illustrative case studies, a list of the test phrases, and a bibliography are included.—C. J. Herrick (Pennsylvania).

5917. Creak, M. Psychoses in children. *Proc. R. Soc. Med.*, 1938, 31, No. 3, 519-528.—Psychoses in children comprise about 2.8% of admissions to both the in- and out-patient departments of the Maudsley Hospital Children's Department. Of the 35 cases discussed, all but one were considered schizophrenic.—W. J. Brogden (Johns Hopkins).

5918. Dersheimer, F. W. A study in the cause and prevention of functional mental disease. *Amer. J. Orthopsychiat.*, 1938, 8, 302-328.—The author outlines his own concept of the etiology and transmission of the functional mental diseases. He also characterizes his concept of mental health or "a natural state of health." Data gathered from a small group of prospective mothers who attended a prenatal clinic are analyzed and interpreted in the light of the concepts presented. The results indicate the possibility of prevention and the need for general education which would emphasize mental health instead of psychopathology.—S. W. Bijou (Delaware State Hospital).

5919. Diez Canseco, F. F. Anormalidades de la memoria en los esquizofrénicos tratados por el cardiazol. (Abnormalities of memory in schizophrenics treated with cardiazol.) *Rev. Neuro-psiquiat.*, 1938, 1, 134-148.—38 of the 86 case studies are given in detail. It is concluded that: there may be complete abolition of memory for the first 20 minutes following an attack induced by cardiazol; abnormalities of memory diminish gradually and are not present after 2 hours; the intravenous injection of cardiazol does not result in loss of memory.—R. M. Bellows (Maryland).

5920. Dimitrijević, D. T. Zur Frage der Körperbaubestimmung bei Geisteskranken. (The problem of determining constitutional type in mental patients.) *Z. ges. Neur. Psychiat.*, 1937, 160, 179-188.—While Kretschmer's views regarding physique and character of psychosis have been widely accepted, the exact determination of physique in indefinite or mixed cases still presents difficulties. Measures of chest circumference, weight, etc., are misleading, since these express acquired and phenotypical rather than innate and constitutional traits. Formulae proposed by Wigert, Wertheimer and Hesketh, etc., are not entirely satisfactory. It is possible to segregate leptosomes from pyknics by means of an index calculated from these measurements: height of the sternum, anterior length of the trunk, length of the legs, breadth of the chest, depth of the chest, breadth of the shoulders, and breadth of the pelvis. To segregate the athletic type from related forms, the formula becomes

$$\left(\frac{a+b+c}{d}\right) \cdot 10 + e + f,$$

where a , b , and c represent leg length, chest breadth, and chest depth; d represents shoulder breadth; and

e and f represent pelvis breadth and anterior trunk length.—C. W. Fox (Rochester).

5921. Dorff, G. B., & Shapiro, L. M. A clinico-pathologic study of sexual precocity with hydrocephalus. *Amer. J. Dis. Child.*, 1937, 53, 481.—R. R. Willoughby (Brown).

5922. Dunbar, H. F. Problems of convalescence and chronic illness. *Amer. J. Psychiat.*, 1936, 92, 1095.—Various emotional factors predispose to illness in various ways. In the clinical picture of organic disease the symptomatology is more devastating in persons with an excessive amount of unreleased anxiety. This plays a role in the tendency to relapse, for if the illness serves a psychically useful function the patient has a powerful, albeit unconscious, reason for remaining ill. Consequently, if the underlying neurotic conflict is relieved, the patient can afford to relinquish the neurotic fragment of his sickness, often the exact part of the disease which is keeping him ill. Psychotherapy must therefore be considered an indispensable weapon in the management of the convalescent patient.—J. P. Robertson (Brown).

5923. Elkind, H. B. Is there an epidemiology of mental disease? *Amer. J. publ. Hlth.*, 1938, 28, 245-250.—R. R. Willoughby (Brown).

5924. Farber, M. L. A critique and an investigation of Kretschmer's theory. *J. abnorm. soc. Psychol.*, 1938, 33, 398-404.—Out of a critical survey of Kretschmer's theory and the investigation of one of its aspects two serious methodological fallacies on the part of Kretschmer and his followers emerge. The first is a failure to control the age factor. Since manic-depressive psychosis occurs later in life than schizophrenia, and since there is a tendency for individuals of the various types to become more pyknic as they grow older, the coincidence of manic-depressive psychosis and pyknic constitution appears to be largely a result of the age factor. The second is the greater tendency toward physical deterioration in schizophrenia, which would have the effect of producing and maintaining leptosome types among schizophrenics. These factors greatly weaken if they do not entirely invalidate Kretschmer's theory.—C. H. Johnson (Boston Psychopathic Hospital).

5925. Fender, F. A. Epileptiform convulsions from "remote" excitation. *Arch. Neurol. Psychiat.*, Chicago, 1937, 38, 259-267.—Stimulation of the cortex of unanesthetized, unrestrained dogs by means of an induced current in an embedded secondary coil produced epileptiform convulsions which appeared to approach those seen in clinical epilepsy more closely than experimental convulsions ordinarily produced by electrical stimulation.—D. G. Marquis (Yale).

5926. Fenyves, E. Kurzmethode zur Behebung psychischer Störungen. *Praktische Verwendung einer kausalphysiologischen Theorie.* (A quick method of removing psychical disturbances. Practical use of a theory of psychological causation.) *Wien. med. Wschr.*, 1937, Part 2, 956-963.—Psychopathological phenomena are functions of their

basic faulty physiological mechanisms. They are produced through fixation of the effect of frequent and excess stimuli. The fixation is relaxed by the aid of the stimuli once actually experienced. Proper functioning soon re-establishes itself without danger of relapse.—P. L. Krieger (Leipzig).

5927. Fuerst, R. A. Problems of short-time psychotherapy. *Amer. J. Orthopsychiat.*, 1938, 8, 260-264.—There is an ever increasing demand for short-time psychotherapy, which, at the present time is not well formulated, taught, or practiced. This type of treatment, although different from psychoanalysis, should take into account psychoanalytical principles, should have its own procedures and its own technical aims and goals, and should be applied only to suitable patients.—S. W. Bijou (Delaware State Hospital).

5928. Gareiso, A., & Escardó, F. [Semeiologic schema of neuropsychic parallelism in children.] *Arch. argent. Pediat.*, 1938, 9, 3-7.—R. R. Willoughby (Brown).

5929. Geyer, H. Die angeboren und früh erworbenen Schwachsinnszustände. (Congenital and early developed states of feeble-mindedness.) *Fortschr. Neurol. Psychiat.*, 1938, 10, 289-323.—This is a compilation of recent work on several phases of the subject. The author first presents a general section on the etiology and character of uncomplicated mental deficiency, discussing the textbooks and references of Lange, Bleuler, etc. Works on single phases, such as intelligence, premature birth, etc., are also included. The second part is concerned with diagnosis and therapeutics. The author then proceeds to special anatomical and clinical forms of deficiency, including congenital malformation of the brain, cerebral palsy, amaurotic idiocy and related diseases, tuberous sclerosis, mongolism, and feeble-mindedness with endocrine disturbances. Also included in this section are isolated defects such as reading disability, inability to calculate, writing defect, and laterality conflict. The final part of the article is concerned with frequency and distribution of feeble-mindedness. The bibliography includes 249 references.—D. S. Oberlin (Delaware State Hospital).

5930. Gibbs, F. A., Gibbs, E. L., & Lennox, W. G. Epilepsy: a paroxysmal cerebral dysrhythmia. *Brain*, 1937, 60, 377-388.—Summary and interpretation of encephalographic records obtained from 400 epileptic patients. The potential rhythm which obtains during seizures is distinctive for the three main types: grand mal has a fast rhythm, psychomotor attacks (psychic variants) a slow rhythm, and petit mal an alternating fast and slow rhythm. The exact pattern of the seizure tends to be characteristic for each patient.—D. G. Marquis (Yale).

5931. Goitein, P. L. Psycho-pathological survey of certain vasomotor disturbances. *Psychoanal. Rev.*, 1938, 25, 335-357.—A very important type of disease arising from disturbed neural control is that group of trophoneuroses known as arterio-spasms. Emotional factors are found to be coincident with

these diseases and to be of great importance. There is a long analysis of two representative cases in which the dreams are analyzed and the mechanisms are described. One of these cases had Graves' disease, and the analysis includes the psychological findings which may be concomitant with this disorder.—*L. S. Selling* (Recorder's Court, Detroit).

5932. **Gordon, R. G., & Norman, R. M.** Further observations on neurological abnormalities in mental defects. *J. Neurol. Psychiat.*, 1938, 1, 173-179.—An investigation of reflex abnormalities was made in a group of 336 unselected institutionalized mental defectives. Abnormal neurological signs were found more frequently in the lower grade patients.—*W. J. Brogden* (Johns Hopkins).

5933. **Guttmann, E., & Winterstein, C.** Disturbances of consciousness after head injuries. Observations on boxers. *J. ment. Sci.*, 1938, 84, 347-351.—Approaching the problem of "whether the function of consciousness can be disintegrated in only one way or in several ways," the authors survey the material on knock-outs in boxing, reaching the tentative conclusions that "the pure knock-out is reflex in character and operative in producing states of dimming of consciousness only; that delirium is not necessarily an intermediate stage in the dissolution of consciousness; and that various neural mechanisms" may be involved in different types of loss of consciousness.—*C. J. Herrick* (Pennsylvania).

5934. **Hall, M. B.** Juvenile nervous and mental instability. *Lancet*, 1938, 235, 272-275.—*W. J. Brogden* (Johns Hopkins).

5935. **Hall, M. E.** Mental and physical efficiency of women drug addicts. *J. abnorm. soc. Psychol.*, 1938, 33, 332-345.—All but 8 of the 37 women drug addicts examined began using drugs before the age of 30. Only two addicts began to use drugs on their own initiative; 22 started upon the advice of friends and 13 upon a physician's prescription. Attempts at cure ranged from none to ten. Most of the addicts had tried various drugs, but morphine and heroin were the two drugs most commonly used. They report a wide variety of physical and mental reactions to drug withdrawal, the commonest being nausea, sleeplessness, restlessness, pains and aches, and nervousness. Their homes tended to be poor from a social and psychological standpoint, but were not markedly underprivileged economically. They were superior educationally and vocationally to the general reformatory population. As a group they were unstable and unadjusted sexually and maritally. Physically they were in poor health as a group. In 67% of the cases where menses should normally have been present, they had ceased. Psychiatrically all but one case showed some personality deviation, the largest group being those with "inadequate personality." The mean IQ was 96.2. In the Babcock tests, motor tests and tests of "old knowledge" were above average.—*C. H. Johnson* (Boston Psychopathic Hospital).

5936. **Hallowell, A. I.** Shabwān: a dissocial Indian girl. *Amer. J. Orthopsychiat.*, 1938, 8,

329-340.—This is an account of the behavior, analysis and treatment of a girl of the Grand Rapids settlement in Canada. Her own people considered her insane, but the author believed her behavior to be merely an exhibition of revolt against parental authority. With a full understanding and appreciation of native customs and beliefs, the author succeeded in exerting effective remedial influence upon the girl. This case is "an excellent illustration of the pragmatic implications of traditional beliefs and culturally phrased concepts."—*S. W. Bijou* (Delaware State Hospital).

5937. **Harper, E. O., & Palmer, H. D.** College mental hygiene methods; one year's experience with a scheme for the early detection of personality disorders among students. *J. Lancet*, 1938, 58, 250-253.—*R. R. Willoughby* (Brown).

5938. **Jacob, J. S.** A note on the alleged increase in insanity. *J. abnorm. soc. Psychol.*, 1938, 33, 390-397.—On the basis of present data no conclusive evidence appears concerning the alleged increase in the incidence of insanity; rather it seems evident that the increase in the population of the state hospitals studied is due, in part at least, to the increased capacity of the hospitals, the increased rate of re-admissions, the lowered rates of discharge and of death, and the increased duration of residence prior to death.—*C. H. Johnson* (Boston Psychopathic Hospital).

5939. **Jahrreiss, W.** Die sogenannten Organneurosen. (The so-called organ neuroses.) *Handb. d. Neurol.*, 1935, 17, 477-540.—The writer deals with the general psychophysical correlations and the influence of mental processes upon vegetative functions. He describes the organ-neurotic disturbances of the circulatory system, of breathing, of the urogenital system, and of the skin according to their origin, course, and treatment. He devotes a section to the so-called co-ordination neuroses (occupational cramps, writers' cramp, stuttering).—*P. L. Krieger* (Leipzig).

5940. **Jervis, G. A.** Phenylpyruvic oligophrenia: introductory study of fifty cases of mental deficiency associated with excretion of phenylpyruvic acid. *Arch. Neurol. Psychiat.*, Chicago, 1937, 38, 944-963.—50 cases of mental deficiency associated with excretion in the urine of phenylpyruvic acid were studied. These constitute 0.52% of institutionalized mental defectives, or about 1 in 25,000 of the general population. Critical examination of the anamnestic data seems to exclude any relation of exogenous agencies to the etiology of the disease, whereas analysis of the genetic figures affords justification for regarding the condition as determined by a single recessive gene substitution. Clinically, the disease appears to constitute a fairly well defined syndrome, characterized by pronounced intellectual defect co-existing with extrapyramidal neurological symptoms (rigid posture, muscular hypertonus, and hyperkinesias). From a biochemical point of view the condition appears to be an error of the metabolism of phenylalanine, consisting essentially of a

failure to oxidize further a normal catabolite, phenylpyruvic acid, which consequently is excreted as such in the urine.—*D. G. Marquis* (Yale).

5941. Kanner, L. *Die Entwicklung und der gegenwärtige Stand der Beziehungen zwischen Psychiatrie und Pädiatrie.* (The development and the present status of the relations between psychiatry and pediatrics.) *Z. Kinderpsychiat.*, 1938, 5, 1-4.—Abstract of an article by the author in *J. Pediat.*, 1937, 11, 418 ff.—*D. Shadow* (Worcester State Hospital).

5942. Kujath, G. *Über Microcephalie bei einem 4½ jährigen Mädchen.* (Microcephaly in a 4½-year-old girl.) *Mtschr. Psychiat. Neurol.*, 1937, 97, 229-256.—Kujath discusses the physiological and psychological functions of a child who, with a well-developed body and face, has a remarkably small skull. She cannot walk or stand and is blind, and the eyes show continuous jerky movements. Everything which can be grasped is carried to the mouth. The developmental defect is multiple, and the child has remained at the 5-7 months level. In situations with an unpleasant affect, the reactions have the characteristics of primitive intelligence. Separation of ego and environment is not completed. The oral and anal zones stand in the foreground.—*P. L. Krieger* (Leipzig).

5943. Ladon, A. *Une épidémie mentale contemporaine. Les apparitions de Belgique.* (A contemporary mental epidemic; the Belgian apparitions.) Paris: Doin, 1937. Pp. 73. 18 fr.—The author gives an objective account of the happenings which have recently occasioned an outbreak of collective mystical ecstasy in Belgium, and then examines psychologically this kind of hallucination, which, because of a number of converging circumstances, may reach considerable proportions.—*G. Goldman* (Sorbonne).

5944. Landis, C. *Methods and conclusions in contemporary abnormal psychology.* *J. abnorm. soc. Psychol.*, 1938, 33, 323-331.—Methods available for use in the field of contemporary abnormal psychology are: (1) application of certain standardized procedures which either measure or detect degrees of mental function, (2) observation and intelligent speculation, and (3) use of the experimental method. During the past ten years there has been a slow recrudescence of experimental fact and conclusion coming out of proper experimental work in abnormal psychology. The greatest need is a dozen or so first-class intellects who can provide the higher mental processes so necessary for the synthesis of the material now available and in the process of being gathered.—*C. H. Johnson* (Boston Psychopathic Hospital).

5945. Leconte, M. *Conflits sociaux et psychoses.* (Social conflicts and psychoses.) Cahors: Thèse de Médecine de la Faculté de Paris, 1938. Pp. 122.—An analysis of 28 clinical observations is given, which shows plainly the influence of social conflicts on the genesis of psychoses. Extensive bibliography.—*G. Goldman* (Sorbonne).

5946. Malzberg, B. *Is birth order related to the incidence of mental disease?* *Amer. J. phys. Anthropol.*, 1938, 23, No. 4.—It has been shown that the first-born are shorter and that they weigh less at birth than the later-born. From this grew the concept of the handicapping of the first-born; it was maintained, among other things, that they also suffer disproportionately from mental disease. To test this conclusion two groups of patients admitted to the Manhattan State Hospital were examined with respect to order of birth. Two groups were studied, one of 549 first admissions with dementia praecox, the other of 498 first admissions with manic-depressive psychoses. It is concluded from the data that there is no relation between birth order and the relative frequency of these two groups of mental disease.—*J. P. Robertson* (Brown).

5947. Mannheimer, E. *Pubertas praecox due to dextralateral granulosa cell tumor of the ovary in a four-year-old girl.* *J. Pediat.*, 1938, 12, 350-356.—*R. R. Willoughby* (Brown).

5948. Muncie, W. *The psychopathology of metaphor.* *Arch. Neurol. Psychiat.*, Chicago, 1937, 37, 796-804.—Cases are reported illustrating the psychopathic use of metaphor in spontaneous speech. The disorder consists in the use of terms in the concrete rather than the customary figurative sense, and occurs exclusively in connection with material involved in the personality disorder.—*D. G. Marquis* (Yale).

5949. Nielsen, J. M. *Unilateral cerebral dominance as related to mind blindness: minimal lesion capable of causing visual agnosia for objects.* *Arch. Neurol. Psychiat.*, Chicago, 1937, 38, 108-135.—A general review of the literature is followed by 13 selected case reports. The cortex of the second and third convolutions of the occipital lobe is found to be essential for the recognition of objects. One occipital lobe is dominant over the other in this function, but while the dominant lobe is usually the left it may be the right, even in right-handed persons.—*D. G. Marquis* (Yale).

5950. North, H. M. *Psychiatry of the school period.* *Med. J. Aust.*, 1938, 1, 250-254.—*R. R. Willoughby* (Brown).

5951. Ortega, L. *El tratamiento de las psicosis por el shock insulínico.* (The treatment of psychoses by insulin shock.) *Psiquiat. y Criminol.*, 1938, 3, 1-10.—Following the theory of Manfred Sakel that functional psychoses are caused by pathological substrate conditions, it is probable that glandular imbalance is the immediate causal factor. After a review of the reports of other experimental results, it is concluded that insulin is effective as a treatment for psychoses of the schizophrenic type. The physiological mechanism of the treatment is unknown.—*R. M. Bellows* (Maryland).

5952. Piker, P. *Psychoses complicating child-bearing.* *Amer. J. Obstet. Gynaec.*, 1938, 35, 901-909.—*R. R. Willoughby* (Brown).

5953. Pollack, B. Foreign bodies in psychotics as an expression of perverted sexuality. *Med. Times, N. Y.*, 66, 171-177.—R. R. Willoughby (Brown).
5954. Potter, H. W. Mental hygiene of childhood: prepubertal period, six to twelve years. *Prev. Med.*, 1938, 8, 14-20.—R. R. Willoughby (Brown).
5955. Sargant, W., Fraser, R., & Brazier, M. The impedance angle and its relation to thyroid treatment in mental disorder. *J. ment. Sci.*, 1938, 84, 255-272.—A method of thyroid therapy in mental disorder is discussed with reference to selection of appropriate cases and control of dosage, and a preliminary report of results is illustrated by case studies.—C. J. Herrick (Pennsylvania).
5956. Schade, H. Die Häufigkeit des Schwachsinns in einer geschlossenen bauerlichen Bevölkerung. (The frequency of feeble-mindedness in an isolated rural population.) *Z. induct. Abstamm.- u. Vererb. Lehre*, 1937, 73, 577.—P. L. Krieger (Leipzig).
5957. Schröder, H. Die Sippschaft der mongoloiden Idiotie. (The relatives of mongoloid idiots.) *Z. ges. Neur. Psychiat.*, 1937, 160, 73-154.—The study is based upon examinations of 1539 relatives of 50 mongoloid idiots. Feeble-mindedness, as well as various deformities and lesser anomalies in structure, slightly exceeded expectation. The results speak to a certain extent for hereditary determination of mongoloid idiocy, but do not authorize a more positive conclusion. The writer criticizes the amnionic theory of van der Scheer and others. Polymeric recessivity is discussed as a possible hereditary basis for mongolism. Bibliography.—C. W. Fox (Rochester).
5958. Slater, E. T. O. Twin research in psychiatry. *J. Neurol. Psychiat.*, 1938, 1, 239-257.—A critical review.—W. J. Brogden (Johns Hopkins).
5959. Stern, E. Zur Frage der Schwachsinnsursachen. (The problem of the causes of feeble-mindedness.) *Gesundh. u. Wohlf.*, 1937, 17, 519-527.—Of 487 feeble-minded children in Paris, 100 were studied in some detail from the point of view of the causes of their feeble-mindedness. Feeble-minded parents were found in from 4 to 6% of the cases (or in 10%, if mild degrees are included); premature births in 11% of the cases; forceps births in 10%; asphyxia in 13%; alcoholism of the parents or grandparents in 45%; syphilis in the parents in from 37.5 to 45%. The early development of intelligence is probably connected with the development of the motor system (walking, standing, talking). Motor immaturity appeared in 65% of the cases. The age of the parents seems to play a role only in mongoloid cases. There were endocrine disorders in 30% of the cases; lowering of basal metabolism (by more than 10%) in 10%; disorders of capillary development in 15%; and interferometric disorders in 90%.—P. L. Krieger (Leipzig).
5960. Stone, J., & Evans, A. The boarding-out of mental patients in the Scottish highlands. *J. ment. Sci.*, 1938, 84, 381-399.—Scottish experience with the boarding out of psychopathic and mentally defective patients is reviewed critically in its medical, legal, and sociological aspects.—C. J. Herrick (Pennsylvania).
5961. Strauss, E. B. The psychogenic factor in asthma. *Guy's Hosp. Rep.*, 1937, 87, 273.—An attempt to investigate the psychic or "nervous" factors in the asthma syndrome by the use of a 10-point scale, which provides a rough quantitative estimate of the psychic and neuropathic background in the answers to 10 questions. 30 consecutive, unselected, adult asthmatics were investigated. The "nervous" element remained unrepresented in only one case.—J. P. Robertson (Brown).
5962. Stump, N. F. Phobias and the Pressey X-O test. *J. exp. Educ.*, 1938, 6, 346-349.—The evidence from this study shows that subjects with phobias make a larger affectivity score on Test I of the Pressey X-O test and check a larger number of "disgust" words than subjects without phobias. This may suggest that psychiatrists must reduce the number of situations which are dissatisfying or disgusting to those with phobias before a permanent cure can be made.—H. W. Karn (Pittsburgh).
5963. Thorner, M. W. Psychologic structure of catatonia. *Arch. Neurol. Psychiat.*, 1938, 39, 513-518.—The author employed sodium amytal in the study of catatonic patients who were otherwise approached with difficulty. These patients showed difficulty in choosing between different lines of action. The variations noted within the diagnostic limits of the group investigated were determined by the psychosomatic peculiarities of the individual patient and his experiences.—W. Marshall (Appleton Clinic, Wis.).
5964. Tscholakow, K. Entstehung, Wesen und Einteilung der Psychoneurosen. (Origin, character and classification of the psychoneuroses.) *Psychiat.-neurol. Wschr.*, 1938, 40, 110-115.—P. L. Krieger (Leipzig).
5965. Wachholder, K. Inwieweit sind die Vitamine und insbesondere das Vitamin C für den Neurologen und Psychiater von Interesse? (To what extent are the vitamins and especially vitamin C of interest to the neurologist and psychiatrist?) *Fortschr. Neurol. Psychiat.*, 1938, 10, 250-288.—The third article in the series deals with the daily requirement of vitamin C by human beings, the detrimental results of insufficiency, and possible therapeutic applications. There is a bibliography.—D. S. Oberlin (Delaware State Hospital).
5966. Wagner, L. E. Coleridge's use of laudanum and opium. *Psychoanal. Rev.*, 1938, 25, 309-334.—The writer points out that Coleridge's use of laudanum and opium is based upon his relationship with a number of medical, scientific, and pseudo-scientific thinkers of his time. Johann Wilhelm Ritter, Thomas Beddoes, and John Brown were all important factors in the development of Coleridge's theories upon life and living mechanisms. He was very much interested in the contemporary physiological investigations on the formation of life, and in

such doctrines as that of Hunter dealing with "the doctrine of the dependence of organic structure on a prior principle of life." Coleridge was discouraged by some of these theories, and others had a dynamic effect upon him, upon which his use of laudanum and opium was dependent. Coleridge felt that his whole being was ruined by what he called "a habit," "a crime," "a sin," and the writer says that he was merely a victim of "an illness of his time." There are 90 footnotes referring to biographical material on Coleridge and contemporary literature.—*L. S. Selling* (Recorder's Court, Detroit).

5967. White, B. V., & Gildea, E. F. "Cold pressor test" in tension and anxiety: a cardiachronographic study. *Arch. Neurol. Psychiat., Chicago*, 1937, 38, 964-984.—Pulse rate was measured with the cardiachronograph before and during immersion of one hand in a bowl of ice-water. Patients who were susceptible to anxious and tensional symptoms had higher initial heart rates, and greater increases during stimulation, than did control individuals.—*D. G. Marquis* (Yale).

5968. Whitehorn, J. C., & Richter, H. Unsteadiness of the heart rate in psychotic and neurotic states. *Arch. Neurol. Psychiat., Chicago*, 1937, 38, 62-70.—The heart rate was recorded electrically with a cardiachronograph during personal interviews designed to arouse affective behavior. Selected samples of records indicate that psychotic patients maintain a steadiness of heart rate greater than that of normal subjects, whereas neurotic patients tend toward a greater unsteadiness of heart rate.—*D. G. Marquis* (Yale).

5969. Wolff, H. G. Personality features and reactions of subjects with migraine. *Arch. Neurol. Psychiat., Chicago*, 1937, 37, 895-921.—A psychological study of 46 subjects with migraine showed that these persons were so constituted as to be peculiarly prone to the development of pernicious emotional states, either sustained or with acute episodic exacerbations. In certain of them a sudden increase in stress was provoked by clearly definable life situations. Such periods were associated with an increase in the intensity and frequency of attacks of migraine.—*D. G. Marquis* (Yale).

[See also abstracts 5625, 5653, 5658, 5681, 5682, 5698, 5704, 5710, 5722, 5812, 5819, 5846, 5867, 5900, 5970, 5971, 5978, 6000, 6088, 6099, 6117, 6122, 6126, 6130.]

PERSONALITY AND CHARACTER

5970. Farnsworth, P. R., & Ferguson, L. W. The growth of a suicidal tendency as indicated by score changes in Bernreuter's personality inventory. *Sociometry*, 1938, 1, 339-341.—A college student who subsequently committed suicide was one of a group that was tested with the personality inventory at college entrance and retested a year later. On the original test his percentile scores were: B1-N 50; B2-S 85; B3-I 43; B4-D 55; F1-C 33; F2-S 88. On the retest the corresponding percentile ratings were

83, 87, 78, 25, 77, 98. These changes were highly atypical for the group, and corresponded to changes noted by his friends. Item analysis of the changes in answers was also revealing. The authors feel that "the retest procedure gives a dynamic picture which can never be attained by a single test," and recommend its use in guidance work.—*L. J. Stone* (Sarah Lawrence).

5971. Harriman, P. L. A follow-up study of the Woodworth-House mental hygiene inventory. *Amer. J. Orthopsychiat.*, 1938, 8, 255-259.—The Woodworth-House mental hygiene inventory was administered to three successive classes of college students in order to learn its predictive value. The 47 students indicating the greatest number of problems were selected for individual analysis and study. It was found that inventory scores were predictive of "subsequent maladjustment in not more than 30 percent of the cases." The author feels that "the practical advantages of such an inventory seem to be too meager to justify its use, except in certain individual cases."—*S. W. Bijou* (Delaware State Hospital).

5972. Harris, D. B., & Dabelstein, D. H. A study of the Maller and Boynton personality inventories. *J. educ. Psychol.*, 1938, 29, 279-286.—The Maller case inventory and the Boynton B. P. C. personal inventory were given to 421 students in grades V through IX. Mean scores of junior-high-school grade groups on the Maller subtests exceed those of the elementary grade groups, but the subtests of the Maller inventory are correlated with mental ability and chronological age only to a slight degree. Total scores on the Maller test are positively, and significantly, related to mental ability, and negatively related to chronological age. The same is true in the case of the Boynton inventory. A factor analysis by the Thurstone simplified center-of-gravity technique indicates that three general factors, possibly four, will account for the relationships among the subtests of the Maller inventory, the keys of the Boynton inventory, and mental and chronological age. "In the light of the fact that differential weightings of various tests in any one factor occur, it is probably advisable to pay close attention to scores on subtests as well as to total scores."—*A. W. Melton* (Missouri).

5973. Harsh, C. M. The categorization of an annoyance inventory. *J. abnorm. soc. Psychol.*, 1938, 33, 346-363.—The method of having a group of judges allocate items into predefined categories is illustrated by the subdivision of an annoyance inventory. The method puts a limitation on technicality of classification, but has the advantage of eliminating ambiguous items and improving the internal consistency of category scores. Independence of the categories is judged both by the agreement and by the lack of overlap of judgments in allocating the items, and by the subsequently obtained measures of consistency of the category scores. The most distinctive categories of annoyance are "human anatomical features," "one's own

acts," "sanitary habits and untidiness of others," "etiquette," "derogatory behavior directed toward oneself or one's belongings," "demonstrativeness or pretenses of others," "behavior having a sexual association," and "chance mishaps." It was found that familiarity with the categories influenced somewhat the internal consistency of subjects' sub-scores of annoyance, for which reason it is better if the subjects are not aware of the existence of the categories.—*C. H. Johnson* (Boston Psychopathic Hospital).

5974. *St. Clair, W. F., & Seegers, J. C.* Certain aspects of the validity of the *F* scores of the Bernreuter personality inventory. *J. educ. Psychol.*, 1938, 29, 301-311.—This study of the Flanagan scoring keys for the Bernreuter test is sequent to an earlier study of the Bernreuter scoring keys (*J. educ. Psychol.*, 1937, 28, 530-540), and makes use of the same data on 1162 college students who had answered questionnaires regarding disagreement in the home, illnesses, nature of personal difficulties, leadership as represented by holding class offices in high school, etc. It is concluded that the *F*-1 score possesses a degree of validity as a measure of self-confidence and is to be identified with the *B*-1 score. The *F*-2 score is said to be inconsistent as a measure of sociability, and the *B*-1, *B*-2, and *B*-4 scores are said to provide a more refined analysis. The "profile" approach to the interpretation of the Bernreuter scores, described in detail in the earlier publication, is indicated as a fruitful field of research.—*A. W. Melton* (Missouri).

5975. *Simoneit, M., Zilian, E., Wohlfahrt, E., & Kreipe, K.* Leitgedanken zur psychologischen Erforschung der Persönlichkeit. (Principles of psychological investigation of the personality.) Berlin: Bernard & Graefe, 1937. Pp. 67.—This is an introduction to the principles of method which have developed during a decade of German military psychology. Simoneit treats of psychological symptoms and rejects irrational methods of psychological diagnosis. Zilian investigates the concept of psychic Anlage, which he considers the result of tension between organism and environment in progressive psychobiological differentiation. Wohlfahrt gives the terminology which, in the practical work of military psychology, has been formed for characterological description of young personalities. Kreipe synthesizes the biological and characterological personality picture from the individual symptoms.—*E. Wohlfahrt* (Berlin).

5976. *Stern, W.* Ein Test zur Prüfung der kindlichen Phantasietätigkeit. (A test for examining children's imagination.) *Z. Kinderpsychiat.*, 1938, 5, 5-11.—A description of the "cloud picture" test of Stern and Struve, a longer report of which has been published in *Character & Pers.*, 1937, 6, 132-146. The most important indication of preliminary studies with the three pictures is that the results seem to depend much less on age, intelligence, race and sex than on personality, which speaks in

favor of the test as a psychodiagnostic instrument.—*D. Shakow* (Worcester State Hospital).

5977. *Swineford, F.* The measurement of a personality trait. *J. educ. Psychol.*, 1938, 29, 295-300.—The author used an objective subject-matter test which permitted the student to determine in the case of each item the number of points to be received for a correct answer (up to 4) and the number of points to be deducted for an incorrect answer (twice the number selected for credit) as a test of the tendency to gamble. A gambling-score formula yields a reliable measure of a trait which is independent of achievement on the same test.—*A. W. Melton* (Missouri).

5978. *Vaughn, J., & Krug, O.* The analytic character of the Rorschach ink blot test. *Amer. J. Orthopsychiat.*, 1938, 8, 220-229.—43 paranoid psychotics and 52 college students were analyzed on the Rorschach and on the Bernreuter personality schedule, which was scored according to "neurotic tendency" and "introversion-extraversion." Certain test similarities were found, e.g., degree and kind of adjustment, analytical ability, stereotypy, and ideas of persecution and grandeur. "The psychotics present evidence of greater dissociation and less rapport with the environment, but it is surprising to find so many apparently normal people presenting similar tendencies. . . . One can hardly escape the conclusion that psychosis is a difference in degree and not in kind. The degree seems important." Bibliography.—*S. W. Bijou* (Delaware State Hospital).

5979. *Whitely, P. L.* The constancy of personal values. *J. abnorm. soc. Psychol.*, 1938, 33, 405-408.—The most impressive fact revealed by the data is the relatively high degree of constancy of the mean scores for the successive administration of the Allport-Vernon test for personal values. For the total group there is a slight tendency for the esthetic scores to increase from the freshman to the junior year, while the religious scores decrease slightly. The coefficients for the religious and esthetic values are highest, and those for the social value lowest. This is in accord with previous findings of the author and with the reliability claims of the creators of the test. The mean scores obtained in this study were compared with the norms presented by the authors of the scale. There was close agreement, with the single exception of religious scores, which are slightly higher at Franklin and Marshall. This seems to be a stable difference, as similar results were obtained in 1931-1932.—*C. H. Johnson* (Boston Psychopathic Hospital).

5980. *Wittkower, E.* Studies in hay-fever patients (the allergic personality). *J. ment. Sci.*, 1938, 84, 352-369.—50 hay-fever patients and 50 surgical controls were studied, with the conclusion that an abnormal personality is a predisposing factor in the allergic diseases. The hay-fever personality was found to include self-absorption, dreaminess, and overweening ambition. A bibliography is appended.—*C. J. Herrick* (Pennsylvania).

5981. Wolf, S. J. Comparison of the standard and a "self-scoring" form of the Vineland adjustment score card. *J. appl. Psychol.*, 1938, 22, 87-96.—Two groups of girls equated with respect to intelligence, nationality, age, etc., were studied to discover whether personality differences accompanied differences in school adjustment between the two groups. The Vineland adjustment score card was utilized in two forms: (1) the standard form filled out by the teacher for each student, and (2) a self-scoring form filled out by each girl for herself. The Telling-What-I-Do test was also administered. The analysis indicated that the Vineland score card, in both forms, differentiates the group of high-achievement from the group of low-achievement girls. The correlations between the Vineland forms and the Telling-What-I-Do test were all low, and raise questions as to the validity of these scales. The self-scoring form of the Vineland card differentiated between the groups somewhat more reliably than the form rated by the teachers.—S. Roslow (Psychological Corporation).

[See also abstracts 5871, 5905, 5962, 5969, 6037, 6044, 6116, 6118, 6120, 6131, 6139.]

GENERAL SOCIAL PROCESSES

(incl. Esthetics)

5982. Alt, M. Die deutsche Musikbegabung. (German musical talent.) *Z. dtsh. Geisteswiss.*, 1938, 1, 69-87.—The author sketches a comparison between romantic music (decorative effect, *aimer la musique*) and German music ("depth," *musica philosophica*).—P. L. Krieger (Leipzig).

5983. Balás, K. v. Das Quantitätsproblem des Bevölkerungszuwachses und das Problem internationaler Verständigung hierüber. (The quantitative problem of population increase and the problem of international understanding related to it.) *Jb. Nationalök. Stat.*, 1936, B144, 410-433.—P. L. Krieger (Leipzig).

5984. Becker, P. E. Zwillingsstudien zur Strichführung (beim Zeichnen). (Twin studies on the drawing of lines in drawing.) *Z. indukt. Abstamm.-u. Vererb. Lehre*, 1937, 73, 517.—P. L. Krieger (Leipzig).

5985. Beers, H. W., Folsom, J. K., & Burgess, E. W. Family life in some American culture groups. *Parent Educ.*, 1937, 4, 13-20.—(*Child Developm. Abstr.* XII: 1319).

5986. Bessie, S. M. Polls of public opinion. *Market Res.*, 1938, 9, No. 1, 3-6.—The study of public opinion is a new science. Its major convenience is its ability to estimate public opinion on any given issue in a short time by interviewing a small but representative group of people. A survey of newspaper publishers and editors throughout the United States shows that about half think that "sampling" of public opinion is a fundamentally sound procedure; some of those remaining are

doubtful.—A. B. Blankenship (Psychological Corporation).

5987. Bickel, W. Die Überalterung der Schweizer Bevölkerung. (The rising age of the Swiss people.) *Gesundh. u. Wohlf.*, 1938, 18, 2-33.—P. L. Krieger (Leipzig).

5988. Bonk, E. Sprachformen im Artikulationsunterricht (bei Taubstummen). (Speech forms in articulation instruction for the deaf and dumb.) *Dtsch. Sonderschule*, 1938, 5, 157-169.—P. L. Krieger (Leipzig).

5989. Bossard, J. H. S. Ecological areas and marriage rates. *Amer. J. Sociol.*, 1938, 44, 70-96.—A study based on 20,000 men marrying in Philadelphia shows a wide range in marriage rates (per 1000 single, widowed, and divorced men) in different parts of the city. The general pattern identified by human ecologists in their studies of the spatial distribution of social phenomena seems to hold for marriage rates. There is a low-rate area in the central business district and the adjacent area of transition, with high-rate zones next in order, thence tending toward lower-rate zones as one moves toward the periphery of the city. Marriage rates are higher in areas of declining population than in those of increasing population. The areas with lowest rates, in addition to the central business district and the downtown zone of transition, are a river-front area and the choice residential sections near the outer limits of the city. The high-rate areas are densely populated sections dominated usually by negroes, Russian Jews, and Italians. The racial and nativity make-up of the population seems to be the chief key to the interpretation of the ecological pattern of marriage rates in Philadelphia.—(Courtesy *Amer. J. Sociol.*).

5990. Bradway, K. P. Social competence of grade school children. *J. exp. Educ.*, 1938, 6, 326-331.—The purpose of this paper is to call attention to a recently developed scale for measuring social maturity, and to report the results of administering the scale to a group of 300 children attending grade school. In general, the data show that there are significant differences in social maturity of retarded, regular, and gifted classes as grouped by existing procedures, that there is a close relation between intelligence and social maturity, and that there is a low positive relation between adjustment and social maturity.—H. W. Karn (Pittsburgh).

5991. Brandt, H. Über Veränderungen des Heiratsalters sowie seine Beziehungen zur Kinderzahl. (The variations of marriage age and their relations to the number of children.) *Arch. Rass.-u. GesBiol.*, 1937, 31, 412.—P. L. Krieger (Leipzig).

5992. Bujas, R., & Bujas, Z. Ein Test zur Untersuchung der Lesbarkeit von Druckschriften. (Testing the legibility of printed characters.) *Acta Inst. psychol. Univ. Zagreb*, 1937, 2, No. 2. Pp. 2.—The legibility of Latin versus Cyrillic characters was tested by presenting samples at random to each of two groups of 30 subjects. The reaction time

was taken as an index of speed of perception, and lack of confusion of letters was the criterion of clearness. Lower-case 16-point letters were used from both alphabets, with selection for comparable forms. One group had originally been taught Latin, the other, Cyrillic, writing. The Cyrillic group, however, was more accustomed to the Latin alphabet. The greater legibility of Latin characters for both groups was marked, with a ratio of about 19 : 1. The authors conclude that differential training is the chief cause.—*H. D. Spoerl* (American International College).

5993. **Cantril, H.** *The prediction of social events.* *J. abnorm. soc. Psychol.*, 1938, 33, 364-389.—Only two of the events mentioned in the questionnaire have been definitely resolved—the fate of the Supreme Court proposal and the possibility of another depression. On the former the majority was wrong; on the latter it was right. Individuals whose attitudes favor a certain outcome for an event tend to forecast the desired outcome. The disagreements between various groups of persons who had essentially the same data upon which to base their predictions indicates that some factors other than external circumstances affected their judgments. Individuals in the same occupational or interest group were in comparative agreement in their predictions. The contradictions between the predictions of different persons and the certainty with which such contradictory predictions were made must be due to well-structured, internal frames of reference. The Communists and bankers, for example, were most certain of their predictions, yet they agreed on practically nothing. The subjects were extremely uncertain of their predictions whenever dates were involved or when they were forced to make a specific judgment that involved many partially known variables.—*C. H. Johnson* (Boston Psychopathic Hospital).

5994. **Dearborn, W. F., & Anderson, I. H.** *Controlled reading by means of a motion picture technique.* *Psychol. Rec.*, 1938, 2, 219-227.—The essential features of the new motion picture technique for improving reading by the control of saccadic eye movements are reviewed, together with a presentation of certain refinements for making the situation as realistic as possible.—*P. S. de Q. Cabot* (Simmons).

5995. **Dickens, M., & Solomon, R.** *The J-curve hypothesis: certain aspects clarified.* *Sociometry*, 1938, 1, 277-291.—The authors take issue with G. J. Dudycha's (*Sociometry*, 1938, 1, 144-154) criticisms of F. H. Allport's J-curve hypothesis. To the objection that J-curve data do not conform to the "50% criterion" it is pointed out that in telic continua where 50% of observed behaviors fell on the first step it was found that a J-curve was highly predictable, but that J-curves need not display the "50% criterion." Loose usage by Allport and by Dudycha of the terms "J-shaped distribution" and "positively accelerated distribution" is blamed for another misunderstanding. Allport has predicted in this context of purposeful behavior governed by a

rule a *positively accelerated* type of J-curve; Dudycha has applied a critical formula, which applies, however, only to a *uniform* positive acceleration. Dudycha's criticism of Allport's double-J-curve hypothesis is held to rest on an error by both in assuming that leptokurtosis and positive acceleration of both slopes are synonymous concepts. Thus Dudycha's demonstrations that these distributions are not necessarily leptokurtic has no bearing on his stated conclusion that both slopes are not positively accelerated. Dudycha's graphing of Dickens' earlier data is criticized for improper choice of base line termini, which seriously distorts the data. It is further pointed out that Dudycha's use of Kelley's formula was not justifiable, since there was no normal curve involved. Finally, the authors emphasize that a characteristic such as punctuality is not primarily a personality trait but a matter of the effectiveness of certain rules along with certain other factors.—*L. J. Stone* (Sarah Lawrence).

5996. **Drüner, R.** *Die Werttafel der Rassenlehre.* (The scale of values in racial theory.) *Z. Menschenk.*, 1938, 14, 11-16.—In studies of racial psychology it is necessary to distinguish between ideal and pattern. Ideals are set up chiefly by reason, whereas patterns live from the very beginning in the unconscious, and first become conscious through their difference from opposing patterns. Drüner applies this concept to the ideals (so designated with only partial correctness) of the so-called "Nordic man," and gives a critical discussion of L. F. Clauss' investigations.—*J. Deussen* (Haina).

5997. **Eames, T. H.** *The physical condition of reading disability cases.* *Arch. Pediat.*, 1937, 54, 489.—In most instances improvement in reading is greatly accelerated when certain physical defects are removed or corrected. Among the conditions that contribute to disability in reading the most important are defects of the eyes, including subnormal vision, difficult vision, accommodation-convergence refractive errors, muscular imbalance, and the like. Next in importance, in the view of many, is mixed cerebral dominance. The findings in general physical and ocular examinations of 25 children with reading disability are summarized and compared with the findings in unselected school children.—(*Child Developm. Abstr.* XII: 1257).

5998. **Ehrhardt, A.** *Über den Zusammenhang von Rasse und Leistung.* (The interconnection of race and performance.) *Rasse*, 1938, 5, 161-169.—About 1000 adolescents 13 or 14 years of age were classified, according to race, as Nordic (N), Phalic (P), Western (W), Eastern (E), East Baltic (EB), and Dinaric (D) types. These were given not obsolete tests but work-tasks which involved the *entire* person. The following measures of output (arranged in each case from high to low) were obtained: for hand-work (wire-bending, hemming, vase-modeling): W (= 5.8), N, P, EB, E, D (= 4.8); for practical handiness (Klemm's form-sorting box): P (= 5.9), W, N, EB, E, D (= 3.8); for spatial perception (Klemm's building test): W (= 6.6), N, P, EB, E,

D (= 3.7); for technical understanding (Charkow test and understanding of a technical situation): P (= 8.0), W, N, EB, E, D (= 4.3); for memory (reproduction of sorted forms after 1½ hours): P (= 5.9), W, N, EB, E, D (= 4.3); for number problems (squaring numbers, etc.): N (= 5.5), W, P, EB, E, D; for simple mental problems (arrangements of texts, completion of meaning): P (= 5.6), N (= 5.4), E (= 5.4), W, D (= 3.3); for work under pressure of time: W (= 5.8), P, N, EB, E, D (= 4.6); for mental flexibility (thought problems): W (= 5.7), N, EB, E, P, D (= 3.3). The W, P, and N groups show less dispersion within the individual tests than do the others; the dispersion is greatest in the E group. As for the remarkable failure of the D adolescents, no corresponding results are found in studies with adults, also reported here.—P. L. Krieger (Leipzig).

5999. Eiserhardt, H. *Die Wanderer auf deutschen Landstrassen*. (Vagrants on German highways.) *Soz. Praxis*, 1937, 714-718.—Account of the first one-day census of all vagrants on German roads made since 1934. For 1935 the count was 29,457, for 1937, 25,193. "Regulated" vagrants constitute about 60%; "unregulated," including offenders and the diseased, 40%. Over a 30-year period the 2-year decrease in vagrants was around 50%.—P. L. Krieger (Leipzig).

6000. Eisler, R. *Eine Jesusvision des zwanzigsten Jahrhunderts psychologisch untersucht*. (Psychological investigation of a twentieth century vision of Jesus.) *Z. ReligPsychol.*, 1937, 10, 213-234.—P. L. Krieger (Leipzig).

6001. Fellbrich, J. *Untersuchungen über die Zungenkraft und ihre Beziehungen zur Zahnheilkunde und Phonetik*. (Researches on the strength of the tongue and its relations to dentistry and phonetics.) Hamburg: (Phil. Diss.), 1936. Pp. 22.—P. L. Krieger (Leipzig).

6002. Forchheimer, J. *Stimmbildung auf stimm- und sprachphysiologischer Grundlage*. (Voice culture on the basis of the physiology of voice and speech.) Munich: Bergmann. Vols. I-II, 1937; Vol. III, 1938. Pp. 82; 78; 59.—The first volume is concerned with the problems of voice production (the acoustic and phonetic bases, breathing, phonetics of singing, etc.). The second volume is intended for actors, lecturers, and all who use the voice continuously for considerable periods; also for persons who have speech or voice difficulties. The third volume is devoted to exercises to develop the singing and speaking voices.—J. Deussen (Haina).

6003. Fox, C. *The method of testing literary appreciation*. *Brit. J. Psychol.*, 1938, 29, 1-11.—Tests of literary appreciation consisted in requiring subjects to fill in the omissions in various passages of prose and poetry by famous authors; the correct words (those written by the author) were to be chosen from among four alternatives. The subjects were 75 honor graduates in training for teaching. It was found that those who had graduated in literary

subjects scored significantly higher than those who had graduated in non-literary subjects; and a better degree among the former correlated positively with a better score in the tests, even when the effect of varying intelligence was excluded. From introspections it appeared that the literature students employed their "literary feeling," while the others tended to exercise their critical judgment.—M. D. Vernon (Cambridge, England).

6004. Freunthaller, A. *Die Signalmethode. Ein Hilfsmittel zur Einführung taubstummer und anderer sprachbehinderter Kinder in die Satzbildung*. (The signal method. An aid to teaching sentence structure to deaf and dumb children, and to others with speech handicaps.) *Z. Heilpädagog.*, 1937, 28, 1-36.—P. L. Krieger (Leipzig).

6005. Fribourg-Blanc, —. *La panique aux armées*. (Panic in armies.) *Pr. méd.*, 1938, No. 27, 521-523.—All irrational collective fear has its origin in some individual who is badly disciplined and abnormally emotional, and this feeling is spread throughout the group because of defects in the group mentality and because of unusual conditions which are to be found in the life of soldiers in the field. Panics in armies nearly always occur in the absence of a responsible leader or when the leader is irresolute. Special conditions of life in the field which encourage discontent are physical fatigue, bad food, exogenic and endogenic intoxication, darkness, waiting, and inaction. Prophylaxis against panic in war may consist of accentuation of moral factors, suppression of factors which impair the physical well-being of the soldier, and a careful weeding out of psychopathic individuals.—G. Goldman (Sorbonne).

6006. Gist, N. P., & Clark, C. D. *Intelligence as a selective factor in rural-urban migrations*. *Amer. J. Sociol.*, 1938, 44, 36-58.—Thus far, studies of the selective influences of rural-urban migration have failed to control adequately the cultural factor. Such control was achieved in the study here reported by measurement of the groups to be compared when they were living in the same rural communities before migration had occurred. A sample of 2544 high-school students was given a standard intelligence test in 1922-23. In 1935 residential data were obtained and the former students were classified as rural and urban. The urban group was in turn divided into four classes according to city size. The urban migrants were found to be superior as measured by the test scores, and their superiority was greatest in cities of metropolitan class. Out-of-state migrants excelled the group remaining in Kansas. The results indicate that the urban environment is exerting a stronger pull upon the abler rural inhabitants of the state, though this selection does not necessarily have any genetic significance.—(Courtesy *Amer. J. Sociol.*).

6007. Graewe, H. *Zwillinge und ihre Schriften*. (The handwriting of twins.) *Umschau*, 1938, 42, No. 15.—A short graphological study proving similarity of character in identical twins. Graewe follows Pfahler's types of hereditary characteristics, which

are to be considered as Anlagen independent of environment.—*J. Deussen* (Haina).

6008. **Haerle, H.** *Familienstatistische Untersuchungen an Lehrern der mittleren und höheren Schulen Ostpreussens.* (Statistical studies on the families of teachers in the secondary and higher schools of East Prussia.) *Arch. BevölkWiss. BevölkPolit.*, 1938, 8, 103-116.—Among this group the total number of children as well as the number in each 5-year period is considerably smaller than among the Württemberg elementary teachers. In the second 5-year period the difference is comparatively slight, but becomes most marked after the first decade.—*P. L. Krieger* (Leipzig).

6009. **Hardy, G.** *Psychologie et colonisation.* (Psychology and colonization.) *Rev. sci., Paris*, 1938, 2, 52-58.—When new countries are to be colonized, it is always necessary to study carefully the native population with respect to family, social, affective, and esthetic customs, and their habits of activity, in order that a spirit of mutual comprehension and collaboration may be created.—*G. Goldman* (Sorbonne).

6010. **Harrington, J. P.** *The American Indian sign language. II. Indians at Work*, 1938, 5, No. 11, 28-32.—From similarities of word-order between the sign language and spoken language and from differences in word order in the sign language of various tribes, the sign language is believed to be based on spoken language; certain signs are more precise than the verbal formations they represent; there are striking parallels between the Indian sign language and the sign languages of deaf mutes and of the Japanese, e.g., the short-cuts such as pointing to the self for "I." The writer presents a new analysis of the signs, in which he shows that there are two fundamental component factors: (1) indication by gesturing at, or "painting" (outlining), and (2) representation by substitution or by mimicking the action or state of that which is indicated. Drawings are presented to illustrate these principles.—*J. McV. Hunt* (Brown).

6011. **Heinitz, W.** *Neue Wege der Volksmusikforschung. Mit einer wissenschaftlichen Einführung in die Homogenitätslehre und die physiologische Resonanz.* (New methods of investigating folk music; with a scientific introduction to the theory of homogeneity and physiological resonance.) Hamburg: Holler, 1937. Pp. 120.—*P. L. Krieger* (Leipzig).

6012. **Hellpach, W.** *Einführung in die Völkerpsychologie.* (Introduction to folk psychology.) Stuttgart: Enke, 1938. Pp. 185. RM 8.00.—This is the first attempt since Wundt's *Elementen der Völkerpsychologie* (1912) to give a short introduction to the subject. The work is divided into 3 parts: the folk as a natural phenomenon (biological factors, especially the age structure and its psychological consequences, racial structure and tensions, and geopsychological factors); the folk as a mental pattern (speech, tools, religion, politics, classes); and the folk as creative will (relation of creative

personalities to their race, the theory of generations, civilizations, cultures and history). Hellpach makes empirical use of Hegel's dialectic law. A discussion of "folkdom" (Hellenism, Latin and Western cultures, Pan Slavism, etc.) closes the work.—*W. Hellpach* (Heidelberg).

6013. **Hellpach, W.** *Magethos.* (The ethics of magic.) *Forsch. Fortschr. dtsh. Wiss.*, 1938, 14, 6-8.—By this term Hellpach means the consciousness of duty arising from magical procedures, fortified by them, and bound to them by magical symbols. The path of spiritual development is from magic ethics to moral or ceremonial ethical laws.—*J. Deussen* (Haina).

6014. **Hopkins, G. H.** *Reading defects in school children.* *Rocky Mtn. med. J.*, 1938, 35, 219-221.—*W. J. Brogden* (Johns Hopkins).

6015. **Horowitz, E. L., & Horowitz, R. E.** *Development of social attitudes in children.* *Sociometry*, 1938, 1, 301-338.—After study of a small rural community in the south as participant observers, the authors describe the major axes of its social organization as based on race, sex, age, and to some extent economic status. Tests were devised to study in children the development of attitudes corresponding to these lines of cleavage. The "categories test," the "show me test," and an Aussage test of perceptual distortion, along with an interview, provided an opportunity to note the growth and relative strengths of the attitudes involved. Attitudes on race and sex were most firmly established in even the youngest children; "race" represented a more fundamental category than sex. Simple visual perception and verbal recall tests indicated the deep effect of race attitude on such functions. Tests such as a modification of Deutsch's "which is best test" were employed to examine hypotheses regarding the source of the attitude. The interview was also employed here. The data on changes of attitude with age and the material supplied by parents and children suggest that social development is not simply a function of mental development. Attitude toward negroes, most intensively studied, seems to have its origin with the child's parents. Toward adolescence children lose awareness of these origins and devise rationalizations to support them. There is a brief discussion of the implications of the findings for the study of personality development and of the relation between the parental role and other societal pressures.—*L. J. Stone* (Sarah Lawrence).

6016. **Houwink, E.** *The Frankenstein relationship.* *Soc. Work Technique*, 1938, 3, 143-146.—"The environments which were created in full or in part through the urges of the ego and the libido have now become more powerful than their creators, and a Frankenstein relationship has been established as the monster we have made has come to dominate us."—*M. Keller* (Butler Hospital).

6017. **Katz, D., & Schanck, R. L.** *Social psychology.* New York: Wiley, 1938. Pp. xiv + 700. \$3.75.—The book consists of 20 chapters in 4 parts: (1) the social world of the man on the street, is

treated from the standpoint of cultural patterns, such as coenotropes, atypical ways, etc.; (2) the scientific basis of social processes, is a detailed study of the physiological and psychological mechanisms and mainsprings of human action; (3) the social world of the clinician; personality, presents personality as to nature, characteristics, development, integration, etc.; (4) the world of the social engineer: social context and social change, is concerned with some of the complicated interrelationships of individuals and society. The authors have considered both sociological and psychological viewpoints. Each chapter is supplemented with a selected bibliography. The book is indexed.—K. S. Yum (Chicago).

6018. Kroeber-Keneth, L. *Unfallneigung und Handschrift*. (Handwriting and liability to accident.) *Z. Menschenk.*, 1938, 14, 17-32.—The handwriting of a number of subjects was studied both for the personality picture and for traits predisposing to accident. The author found that accelerated temperament and dullness, paralysis of affect, depression, inhibition, and especially "disturbance of the melody of movement" came in question as constant causes of accident. In addition, the personality analyses of individuals who had suffered repeated accidents showed timidity, disorderliness, carelessness, fatigability, and distractibility.—J. Deussen (Haina).

6019. Landis, P. H., & Landis, J. T. If students were kings. *Sch. & Soc.*, 1938, 47, 838-840.—The study is an attempt to compare the attitudes of students in widely separated parts of the country (Louisiana and Washington) toward the Supreme Court and Black-Klan controversies. The subjects were asked to check statements which varied from an extremely conservative to an extremely radical viewpoint, and to give their political and religious affiliations. The two issues produced very different results. In regard to the Supreme Court the Louisiana group, largely Democratic, is on the whole liberal, but less so than the Washington Democrats and more than the Washington Republicans. On the second issue the line-up was along religious lines, the Catholics being conservative and the Protestants liberal. The Louisiana students are in general more liberal than the Washington students, who are mildly conservative. The results indicate that the attitude of a group depends on the issue at hand.—M. Lee (Chicago).

6020. Lewin, K., & Lippitt, R. An experimental approach to the study of autocracy and democracy: a preliminary note. *Sociometry*, 1938, 1, 292-300.—Two groups of 5 10- and 11-year-old children voluntarily formed mask-making clubs. The groups were equated in terms of a sociogram of the groups from which they came. One group was run democratically, with policies mutually determined, all steps discussed in advance, free selection of work-mates, and an encouraging leader who gave criticism and praise to the group as a whole. The other, authoritarian group, worked with all determination

of policy by the leader, dictation of steps in the work one at a time, and individual praise and reproof. During 12 meetings for each group 4 trained observers made synchronized records: a running quantitative account of social interaction in terms of ascendance, submission, etc.; a quantitative record of group structure in terms of number and size of subgroups, their activities, interests, etc.; running comments and ratings on shift of interest for each member from task to "out-of-the-field" preoccupations; a stenographic record of conversation; and a post-meeting write-up by the leader. Analysis of these records is still going on. Formulae are developed to describe the amount of in-group and out-group interaction. Some of the findings thus far are: a higher state of tension for the autocratic group (e.g. more ascendance, development of scapegoats); more co-operation, more objective attitude and superior constructiveness in the democratic group; greater feeling of "we-ness" in the democratic and greater feeling of "I-ness" in the autocratic group; more stable group structure in the democratic group following an exchange of members, a decrease in dominating behavior was found in the child who went to the democratic group, with a reverse change for the child going to the authoritarian group.—L. J. Stone (Sarah Lawrence).

6021. Lundberg, G. A., & Steele, M. Social attraction-patterns in a village. *Sociometry*, 1938, 1, 375-419.—Housewives in a Vermont village of about 1000 population, "almost 100% white 'Yankee,'" were interviewed. Each family was scored on the Chapin scale of socio-economic status, on the Morgan-Leahy scale of cultural content of periodicals, on the Goodenough-Anderson scale of occupations; relationships to other members of the community, church membership, club membership, and geographic location were also ascertained. S's were casually asked to name confidentially their best friends in the community. The resulting "attraction-patterns" are presented in 8 sociometric charts. Each of the eight groups into which the population fell is analyzed in terms of the data mentioned above and in terms of the degree of interaction, cohesion, centripetality and centrifugality they present, as well as in terms of the sociometric patterns found. Each group is discussed in detail. General conclusions are: no reliable narrow grouping on the basis of socio-economic status exists, although the groups vary in homogeneity of status; there is a tendency for persons of lower status to associate themselves with those of higher status; socio-economic and cultural status show $r = .51 \pm .03$, i.e., in groups of high socio-economic status "culture" scores were more homogeneous; occupations were too closely linked to socio-economic status and too widely scattered to be important in the friendship groupings; "relatives cannot be said to dominate the groupings in this village"; church membership in a common church was clearly associated with the friendship groupings; club membership and geographic factors were not important in this village. Some implica-

tions for sociological research method are briefly discussed.—*L. J. Stone* (Sarah Lawrence).

6022. **Marston, W. M.** What people are for. *Rotarian*, 1938, 53, No. 2, 8-10.—Case studies of the "thing-obsession," for which companionship is the best catharsis.—*R. R. Willoughby* (Brown).

6023. **Moreno, J. L., & Jennings, H. H.** Statistics of social configurations. *Sociometry*, 1938, 1, 342-374.—Chance sociometric configurations were set up by shuffling and drawing ballots with fictitious names. Theoretical analysis of the problem was supplied by P. F. Lazarsfeld. The chance choices were compared with actual choices of populations of similar size. Comparison of chance and actual choices revealed in the latter a larger number of isolates and individuals rarely chosen, as well as a far larger number and volume of choices of those over-chosen. This is held to be a statistical demonstration of the "socio-dynamic effect." Other differences are indicated (213% greater probability of mutual structures in the actual configurations, and the appearance in actuality of complex structures, e.g. triangles) which are lacking in the chance sociograms. Statistical confirmation of the "network" is also given. Consideration of some actual patterns, however, suggests that quantitative analysis of choices is artificial and of limited value; "structural analysis of the configurations as such gives a better picture." A sociometric scale is suggested for comparison of one social aggregate with another from the point of view of comparative strength of cohesion. Formulae for computing degree of cohesion and a scale for placing the results are suggested. Until norms for actual populations are established a chance reference base is given.—*L. J. Stone* (Sarah Lawrence).

6024. **Müller-Freienfels, R.** Psychologie der Kunst. Bd. III. Die Psychologie der einzelnen Künste: Tanzkunst, Dichtung, Musik, Ornamentik, Baukunst, Plastik und Malerei. (The psychology of art. Vol. III. Psychology of the various arts: dancing, poetry, music, decoration, architecture, sculpture, and painting.) (2nd ed.) München: Reinhardt, 1938. M 3.80.—The present volume brings to an end the author's extensive study on the psychology of art. It can, however, be understood without reference to the previous volumes, of which it is to some degree a résumé. Both the common and the distinguishing characteristics of the various arts are brought out. The book can also be used by the laity as a scientific introduction to the study of each branch of art.—*R. Müller-Freienfels*.

6025. **Muster, D.** Asupra constituirii disciplinei "Limba Romana." (On the appointment of teachers of the Rumanian language.) *J. Psihot.*, 1937, 1, 26-28.—*R. R. Willoughby* (Brown).

6026. **Nadoleczny, M.** Experimentell-Phonetisches zur einseitigen Gaumensegellähmung. (Experimental and phonetic study of unilateral soft palate injuries.) *Arch. Sprach. Stimmheilk.*, 1937, 1, 10-17.—The author demonstrates, in 6 cases of unilateral palate injuries, that on turning the head

toward the injured side open palatalization disappears for the listener, while on turning toward the uninjured side it becomes greater. This is caused by the movement of corresponding groups of muscles at the orifice of the nasal cavity.—*P. L. Krieger* (Leipzig).

6027. **Park, W. Z.** Shamanism in western North America; a study in cultural relations. Evanston, Ill.: Northwestern University, 1938. Pp. viii + 166. \$2.25.—*R. R. Willoughby* (Brown).

6028. **Peekel, G.** Über das Wesen der Tubuanmaske von Neupommern. (The nature of the Tubuan mask in New Pomerania.) *Arch. Anthropol.* (Thilenius), 1938, 24(N.F.), 103-139.—*P. L. Krieger* (Leipzig).

6029. **Portmann, F.** Die Entwicklung des R-Lautes beim normalen, stammelnden, schwerhörigen und tauben Kinde. (The development of the R sound in normal, hard-of-hearing, stammering, and deaf-mute children.) Lucerne: Institute for Corrective Education, 1938. Pp. 56. SFr. 2.00.—The R sound can be formed at any of the sites of articulation. The author discusses its importance for pronunciation; the tongue-tip, the palatal, and other R forms; the advantages and disadvantages of each; different methods of producing the R in stammerers, the hard-of-hearing, and deaf mutes; and the special difficulties in the deaf-blind, the mentally defective, stutterers, and children with palatal defects, hare-lip, anomalies of the tongue, or gaps in the side teeth. Physical and mental exercises, including the tongue and breathing, as well as practice in mental readiness, are given. Bibliography.—*F. Portmann* (Freiburg, Switzerland).

6030. **Price, H.** Magic. (Silent film.) London: National Film Library, 1935-36. 350 feet, 16 mm. Rental price on request to The British Film Institute, 4 Great Russell St., London, W.C.1.—The initial sequences show an English conjuror reproducing an important part of the famous Indian rope trick. In the second part Price and his colleagues carry out the rites of a legendary ceremony whereby it was supposed that a virgin he-goat in the presence of a maid could be turned into a young man; the goat, however, remains a goat. The last section portrays a fire walk performed by a Kashmir Indian under experimental conditions.—*L. F. Beck* (Oregon).

6031. **Prudhomme, C.** The problem of suicide in the American negro. *Psychoanal. Rev.*, 1938, 25, 187-204; 372-391.—Negroes furnish a small proportion of successful suicides but a higher number of attempted suicides. This lower rate may be due to the fact that negroes live predominantly in rural districts and in warm climates; the negro also has interpersonal relationships which enable him to get rid of a good deal of pent-up emotion. There is less inhibition, and this is a factor in the lower suicide rate. The large number of attempted but unsuccessful suicides is due to an attempt to extract sympathy and attention.—*L. S. Selling* (Recorder's Court, Detroit).

6032. Ranitzsch, S. Ein ungewöhnlicher Fall von Handschriftnachahmung und Anonymschreiberei. (An unusual case of imitation of handwriting and anonymous writing.) *Z. Menschenk.*, 1938, 13, 193-200.—J. Deussen (Haina).
6033. Reboud, R. La synthèse mentale et l'audition des accords musicaux. (Mental synthesis and the hearing of musical chords.) *Rev. Phil.*, Paris, 1936, 36, 494-544.—The author found, in giving a series of tests involving the hearing of musical chords, that the subjects were able to recognize and compare chords without being able to name the notes or the number of the notes in the chords. He concludes that musical audition is the perception of a whole, and that it is a manifestation of mental synthesis.—(Courtesy *Année psychol.*).
6034. Rodenwaldt, E. Die nicht gemeinsamen Rasselemente der Balischen Kasten. (Heterogeneous racial elements in the Bali castes.) *Arch. Rass.- u. GesBiol.*, 1938, 32, 111-142.—On the basis of 62 illustrations, Rodenwaldt discusses the objective and subjective difficulties in determining the characteristics of pure races in Bali.—P. L. Krieger (Leipzig).
6035. Römer, J. Fremdrassen in Sachsen. (Alien races in Saxony.) *Volk u. Rasse*, 1937, 12, 321-328.—Disregarding gypsies and Jews, in Saxony there are about 70 representatives of German provinces who have some near-Eastern and colored blood, among whom are only 50 negroes and negro strains.—P. L. Krieger (Leipzig).
6036. Rumsey, H. Stammering habit: correction through speech re-education. *Practitioner*, 1937, 139, 707-715.—R. R. Willoughby (Brown).
6037. Schröder, H. E. Lebendige Charakterbildung. (Living pictures of character.) *Z. Menschenk.*, 1938, 13, 182-193.—Schröder contrasts the judgments of prominent contemporaries on the personalities of Novalis, H. Steffens, J. Görres, Kleist, Lenau, Mörike, and G. Büchner with samples of their handwriting, which were made available to him by the Prussian State Library.—J. Deussen (Haina).
6038. Sterzinger, O. H. Grundlinien der Kunstpsychologie. Bd. I. Die Sinnenwelt. (Principles of the psychology of art. Vol. I. The world of sensation.) Graz: Leykam, 1938. Pp. 279. RM. 5.00.—On the basis of recent psychological investigations, Sterzinger examines systematically various phenomena and problems of art. The main subjects treated in this volume are architecture and music. Other topics are: perspective, color and sound harmonies, the musical systems of different peoples, space, time and movement, the patterns common to all the senses, size, number, contrast, repetition, symmetry, rhythm, and finally, more complicated sensory patterns, types of artistic individuality, and trends in art.—O. H. Sterzinger.
6039. Stromberg, E. L. The relationship of measures of visual acuity and ametropia to reading speed. *J. appl. Psychol.*, 1938, 22, 70-78.—The Betts tests of visual sensation and perception and the Ives test of acuity and ametropia were administered to a group of slow readers and to a group of fast readers. The two groups were selected from 1200 Minnesota sophomores and juniors on the basis of performance on the Chapman-Cook speed-of-reading test. The two groups were also equated for intelligence. Results indicated that neither test differentiates fast from slow readers on the college level.—S. Roslow (Psychological Corporation).
6040. Téhoueyres, E. La femme. Etude medico-psychologique. (Woman; a medico-psychological study.) Paris: Baillière, 1938. Pp. 120.—G. Goldman (Sorbonne).
6041. Thorndike, E. L. The influence of disparity of incomes on welfare. *Amer. J. Sociol.*, 1938, 44, 25-35.—For each of 295 cities the disparity or variability in amounts paid for rent (or equivalent in case the home is owned) is computed and used as a rough measure of disparity in the income of the city's families. There is computed also for each city an index, G, of the general goodness of life for good people from 37 items symptomatic of welfare, and an index, P, of the quality of the population from 11 items symptomatic of intelligence, morality, and devotion to the family. The intercorrelations of G, P, various scores for parity, the median amount paid for rental, and the 5 percentile rental are computed. From these it appears that for cities identical in the median rental parity has a balance of .05½ to its credit; for cities identical in the infrequency of extreme poverty parity has a balance of .06½. It also appears that parity is beneficial only by virtue of its affiliation with P. The practical conclusion is drawn that social effort should be devoted to improving the quality of a community's residents rather than to equalizing their incomes.—(Courtesy *Amer. J. Sociol.*).
6042. Tütting, L. Kulturgeschichte der Lauinseln (Fidschigruppe). (The cultural history of the Lau Islands (Fiji group).) *Arch. Anthropol. (Thilenius)*, 1938, 24(N.F.), 140-153.—P. L. Krieger (Leipzig).
6043. Walker, R. Y. A qualitative study of the eye movements of good readers. *Amer. J. Psychol.*, 1938, 51, 472-481.—50 freshmen, rating in the top decile on the Iowa silent reading test, and likewise in the top decile of an intelligence test, served as S's. Photographic recordings of eye movements were made during the reading of 6 selections of varying degrees of difficulty. Comprehension was measured by answers to questions or report of the content. It was found that time and fixations were distributed almost equally over the whole line, and the differences in difficulty had no significant effect upon this result. The duration of fixation was greater than average at the beginning and middle of the line. The eye movements of good readers appear to be symptoms of ease or difficulty in comprehending the material read.—D. E. Johannsen (Skidmore).
6044. Walther, J. Die psychologische und charakterologische Bedeutung der handschriftlichen

Bindungsarten. (The psychological and characterological significance of forms of connection in handwriting movements.) *Neue psychol. Stud.*, 1938, 11, No. 3, 63-158.—Studying the three main forms of connection (angular, "arcade," and "garland" connections) in writing movements, Walther applies different methods of relating the motor activity to a total personality structure. The first one is based on observation of movements peculiar to the writer and of their congruency; the second on an investigation of physiological factors co-operating in producing the movement; the third on a description of the writer's "inner" experience during the performance of different forms of connection. From the evidence gained Walther infers that the inclination toward using one or the other form of connection may be attributed to various personality structures which he differentiates according to their social responsiveness.—*E. Franzen* (Progressive Education Association).

6045. **Ward, W. K.** The treatment of cleft-palate speech. *S. Afr. med. J.*, 1937, 11, 433.—(*Child Developm. Abstr.* XII: 1269).

6046. **West, R., Kennedy, L., & Carr, A.** The rehabilitation of speech. New York: Harper, 1937. Pp. 475. \$4.00.—There is a discussion of the factors in normal speech and an analysis of the factors which produce difficulties, including maldevelopments, anatomic defects of the vocal mechanism, psychological disorders, neuropathies, endocrine disturbances, and impaired hearing.—*J. P. Robertson* (Brown).

6047. **Wile, I. S.** Love at first sight as manifest in "The Tempest." *Amer. J. Orthopsychiat.*, 1938, 8, 341-356.—Miranda and Ferdinand, the leading characters in Shakespeare's "Tempest," experience mutual romantic love at first sight. Such a phenomenon is possible and may have a wholesome outcome if both parties are psychologically prepared. After extensively analyzing the lines of the play to learn the nature of the basic psychic needs of the characters, the author concludes that "one feels, indeed, that this tale of love at first sight is properly founded and that the adolescent emotional developments attain a quartz-clear fusion in the unification of two fine personalities."—*S. W. Bijou* (Delaware State Hospital).

6048. **Wirtz, J.** Druck- und Geschwindigkeitsverlauf von ganzheitlichen Schreibbewegungsweisen. (Sequence of pressure and speed in writing movements considered as a whole.) *Neue psychol. Stud.*, 1938, 11, No. 3, 5-55.—Using an apparatus which allows for measuring pressure and speed in writing movements at the same time, Wirtz has established lawful interrelations between both the two categories themselves and with a third one described as the "formed line." He investigates the physiological factors determining the degree of pressure and speed in writing and interprets them in terms of their meaningfulness to the individual experiencing this motor activity. The most important finding gained by these experiments is a

confirmation of graphological theories which hold that strokes performed by the same writer show varying kinds of relation between pressure and speed according to their appearance within the unit of the word or without such a rhythmic determinant. On the whole, Wirtz' analysis proves characterological deductions such as those made by modern graphologists like Klages, Pulver, Wieser and Hartge.—*E. Franzen* (Progressive Education Association).

6049. **Young, R. A.** Case studies in reading disability. *Amer. J. Orthopsychiat.*, 1938, 8, 230-254.—41 children of average intelligence were studied by the case method to learn what effect a reading handicap has on an individual's later life, particularly in regard to school success. Each child was diagnosed as having a reading disability at least three years prior to the time of the examination for this study. Conclusions are discussed under the following headings: reading test results, spelling test results, lateral dominance test results, ocular examination results, criteria for determining success in overcoming a reading defect, Dearborn C and Stanford-Binet test results, persistence of reading difficulty, emotional attitudes, changing of handedness, remedial methods.—*S. W. Bijou* (Delaware State Hospital).

[See also abstracts 5643, 5782, 5825, 5911, 5913, 5936, 5943, 5945, 5956, 6052, 6101, 6105, 6124, 6135.]

CRIME AND DELINQUENCY

6050. **Brown, Fred.** Social maturity and stability of non-delinquents, proto-delinquents, and delinquents. *Amer. J. Orthopsychiat.*, 1938, 8, 214-219.—According to the results of Brown's personality inventory for children and Furfey's revised developmental age scale, non-institutionalized non-delinquent boys are superior to non-institutionalized proto-delinquents and delinquents in social maturity and in general stability (neurotic tendencies). Proto-delinquents are "boys who have never appeared in court on an official charge but who have engaged in anti-social behavior."—*S. W. Bijou* (Delaware State Hospital).

6051. **Hagerty, E. F.** The supervision of the adolescent delinquent girl. *Soc. Work Technique*, 1938, 4, 147-153.—*M. Keller* (Butler Hospital).

6052. **Harrasser, A.** Die Rechtsverletzung bei den australischen Eingeborenen. (Law-breaking among the Australian natives.) Stuttgart: Enke, 1936. Pp. 164.—*P. L. Krieger* (Leipzig).

6053. **Henkel, H.** Das Sicherungsverfahren gegen Gemeingefährliche. (Defense proceedings against persons dangerous to society.) *Z. ges. Strafrechtsw.*, 1938, 57, 702-750.—*P. L. Krieger* (Leipzig).

6054. **Jess, H.** Verbrechen in Hypnose und posthypnotischer Suggestion. (Crime in hypnosis and posthypnotic suggestion.) Würzburg: Mayr, 1936. Pp. 20.—*R. R. Willoughby* (Brown).

6055. Liszt, E. v. Zum 25jährigen Bestehen der Wiener Jugendgerichtshilfe. (The 25 years of existence of the Viennese juvenile court auxiliary.) *Mtschr. KrimBiol.*, 1937, 28, 575-580.—P. L. Krieger (Leipzig).

6056. McHugh, R. [Ed.] *The delinquent child and the institution*. Albany: State N. Y. Dept. Soc. Welf., 1937. Pp. 72.—This symposium is composed of eight short papers, of which six were read at the New York State Conference of Social Work. They deal with the following subjects: the scope of the training program for workers with delinquents; record forms for charting the progress of the institutionalized child; when a case should be "given up"; discipline in the institution; institutional treatment of delinquents in terms of sound mental hygiene; and personality tests for delinquents. A brief report of the Advisory Committee on Training Schools for Socially Maladjusted Children is also included.—(*Child Develpm. Abstr.* XII: 1178).

6057. Meignant, —. [Juvenile delinquency in Nancy.] *Bull. Soc. pediat. Paris*, 1936, 34, 436ff.—200 cases of juvenile delinquency were observed during 1935. These included the usual multiple varieties. 25% were mentally retarded and 10% were epileptic. 80% came from families in which the parents were dead, not married, separated, or suffering economic depression and unemployment. With proper medico-socio-judicial co-operation and with more money made available to improve the economic lot in the districts from which the majority of juvenile delinquents come, the outlook for improvement should be good.—J. P. Robertson (Brown).

6058. Strube, W. Rückfallprognose. (Prognosis of recidivism.) *Bl. Gefängnisk.*, 1937, 68, 24-33.—50% of all those who serve a first prison sentence of 3 months become recidivists within 5 years.—P. L. Krieger (Leipzig).

6059. Stumpf, F. Verbrechen und Vererbung. (Crime and heredity.) *Mtschr. KrimBiol.*, 1938, 29, 1-15.—P. L. Krieger (Leipzig).

[See also abstract 6140.]

INDUSTRIAL AND PERSONNEL PROBLEMS

6060. Bank Manager. *Industrial psychology in banks*. *Occup. Psychol.*, 1938, 12, 239-242.—In view of the fact that the average bank employee in England who works 40 years costs the bank more than \$70,000, selection should be carefully made. The use of properly constructed tests and rating scales is recommended. The system of training now in vogue, viz., correction by the next senior worker, should be replaced by a pre-appointment course of instruction, which would help weed out the unsuitable candidates and at the same time provide adequate foundation training for those who are to continue.—H. Moore (Mt. Holyoke).

6061. Bills, M. A. Relation of scores in Strong's interest analysis blanks to success in selling

casualty insurance. *J. appl. Psychol.*, 1938, 22, 97-104.—The Strong interest blank was administered to commissioned casualty insurance men attending the insurance schools conducted by the Aetna Casualty and Surety Company. After one year in the field the success or failure of these men was rated by the manager. The two scores of the interest blank compared with these ratings were life insurance sales and real estate sales. The letter grades were arbitrarily weighted and combined to yield a single score. The results revealed that the lower the score on the interest blank the greater is the chance for failure.—S. Roslow (Psychological Corporation).

6062. Black, H. H. The postscript always rings twice. *Market Res.*, 1938, 9, No. 1, 17-19.—The postscript on a sales letter has three main advantages: (1) an important, yet digressing point can be added without breaking the tempo of the letter, (2) the postscript has high attention value, and (3) it has preferred position at the bottom of the page. Of 338 sales letters selected at random, 81 (24%) used postscripts. Among these, the postscript was put to such uses as the following: a special offer made, emphasis on "do it now," stressing an important point, mention of price, etc. The postscript is not an afterthought, but a means of adding to the letter's power to impel action.—A. B. Blankenship (Psychological Corporation).

6063. Bontila, G. C. Problema oboselii in industrie. (The problem of fatigue in industry.) *J. Psihotek.*, 1937, 1, 29-48.—R. R. Willoughby (Brown).

6064. Bornemann, E. Die Wirkungen der zwangsläufigen Arbeit mit übersteigertem Tempo. (The effects of work at a set tempo greater than normal.) *Z. angew. Psychol.*, 1938, 54, 145-263.—The author investigated the effect of a working tempo above the normal upon the quality and quantity of work done (arithmetical problems) and the subjective changes occurring in the worker. It was found that an increase in tempo showed little decline in either the quality or the quantity of the work, but fatigue and dislike for the work appeared sooner. The adjustment of the worker to the increased demands of the task is considered in relation to theories of the will.—G. F. J. Lehner (Vermont).

6065. Coutant, F. R. Analyzing sales and sales trends. *Market Res.*, 1938, 9, No. 1, 20-22.—There are two types of sales analyst: one who devises and installs systems, and one who carries on established sales analyses month by month. To devise, install, and get started the operation of an efficient, economical sales analysis system is a job for a marketing expert.—A. B. Blankenship (Psychological Corporation).

6066. DeSilva, H. R. Applications of driver clinics. *J. Psychol.*, 1938, 6, 233-241.—Driver clinics exist to give the adult confidential advice of an objective nature on what is wrong with his driving and what he should do about it. Traveling clinics consist of: (1) vigilance test, (a) braking

reaction, (b) steering, (c) braking and steering combined, (2) universal visual test, (3) speed estimation test, (4) hearing test. Examinations and interviews of several thousand average and bad drivers show them to fall into the class of our less successful citizens, a finding corroborated by actual accident statistics. The clinics have proved useful in municipal police departments where clinical examination of repeaters reduces the fatality record (in Wichita by $\frac{1}{3}$), in state education departments for use in teaching high-school students, in automobile clubs, in commercial fleets for diagnosing and improving the driving of professional drivers, in insurance companies in assisting their field engineers to improve the driving of fleet operators, in oil companies to assist them in safety educational work, in automobile shows, and for basic research.—*J. McV. Hunt* (Brown).

6067. **DeSilva, H. R., & Channell, R.** Driver clinics in the field. *J. appl. Psychol.* 1938, 22, 59-69.—A discussion of the work and procedure of the driver clinics set up by the Harvard Traffic Bureau. These are traveling clinics, spending a month at each destination. The clinic requires a trained specialist as supervisor and physical apparatus consisting of a vigilance test, a universal visual test, a speed estimation test, and a hearing test. The clinics have gathered valuable information about human causes of accidents and have re-educated drivers in the effort to reduce accidents.—*S. Roslow* (Psychological Corporation).

6068. **DeSilva, H. R., & Forbes, T. W.** Improving bad drivers. *Safety Engng.*, 1938, June, 13.—180 drivers who had had more than 2 accidents in the previous $1\frac{1}{4}$ years were invited to go through a driver test clinic. 101 were retrained. They showed considerably more reduction in their accident rate than did the 79 who were not retrained.—*H. Schlosberg* (Brown).

6069. **DeSilva, H. R., & Robinson, P.** Testing policemen and firemen as drivers. *Police J.*, 1938, May. Pp. 4.—A discussion of the performances made by 103 policemen and 85 firemen in a driver testing clinic. The significance of different profiles is shown. In this group the composite driving score seems to improve with increasing age, although some of the sensory and motor abilities decrease.—*H. Schlosberg* (Brown).

6070. **Geiger, H. E., Remmers, H. H., & Greenly, R. J.** Apprentices' attitudes toward their training and the construction of a diagnostic scale. *J. appl. Psychol.*, 1938, 22, 32-41.—An attitude scale measuring apprentices' attitudes toward their training was constructed in the usual manner. However, the items chosen were such that 6 "sub-" or "intra-" attitude scales were included in the generalized attitude scale. In this way the 6 "intra" scales functioned as diagnostic scales indicating attitude toward the following specific factors in the job situation; (1) job proper; (2) fellow employees; (3) foremen; (4) promotion; (5) related instruction; (6) management. Reliabilities and intercorrelations

between the "intra" scales are reported. The authors believe that the low reliabilities resulted from the homogeneity of the groups to which the scale was administered. The intercorrelations are low, indicating that the "intra" scales really measure different aspects of the attitude toward the training program.—*S. Roslow* (Psychological Corporation).

6071. **Gibson, J. J., & Crooks, L. E.** A theoretical field-analysis of automobile-driving. *Amer. J. Psychol.*, 1938, 51, 453-471.—An attempt to describe automobile-driving in terms of habits, attitudes, and response-sequences produced little useful theory, for the overt reactions are simple and easily learned; the complexity of the problem lies in the perceptual field. The procedures of driving were therefore analyzed in terms such as Lewin uses. A car is thought of as a tool of locomotion; the problem of driving it is essentially learning to proceed to a destination without colliding with obstacles in the path. Facing the driver is a "field of safe travel"; his problem is to judge the size of this field and to progress down the middle of it. The objects in this field have valences, positive or negative, a green light being an example of the former, a red light of the latter. Deceleration or stopping is called for when there are obstacles which reduce the size of the field of safe travel. The factors which limit the size of this field are natural (ditches), inflexibility at high speeds, obstacles and their "clearance" lines, moving obstacles, potential obstacles (barriers to sight which may conceal obstacles), and legal taboos. Besides the field of driving, two other fields must be considered: the field of the other driver and the field of the car. The field of the car includes kinesthetic and tactual cues brought to the driver through the car itself, e.g., the "feeling" that the road is slippery. It is suggested that positive instruction in the principles that make certain driving practices dangerous for psychological reasons, instead of admonition or punishment, will lead to a reduction of accidents.—*D. E. Johannsen* (Skidmore).

6072. **Hiscock, W. G.** Selection tests for chemical process workers. *Occup. Psychol.*, 1938, 12, 178-186.—After an analysis of the tasks performed by process workers in the Imperial Chemical Industries, a list of 19 desirable qualities was agreed upon and a test battery was drawn up which was analogous to the type of work the process worker performs. This was supplemented with a number of shorter tests—for bodily dexterity, for judgment of color, for memory, and for alertness of observation. Since 1934, when the tests were introduced, all applicants have been given the tests. 59% have exceeded the critical score, and of these not one has been discharged for unsuitability; those who were most successful in the tests have become the most suitable workers, and those who were hired in spite of a low score on the tests have been either discharged or transferred. The tests are given individually and require $1\frac{1}{2}$ hours to administer.—*H. Moore* (Mt. Holyoke).

6073. Jenkins, J. G. **Dependability of Psychological Brand Barometers. I. The problem of reliability.** *J. appl. Psychol.*, 1938, 22, 1-7.—This study is the first of two undertaken by the author to investigate the reliability and validity of the Psychological Brand Barometers. The Brand Barometer is a periodic survey in which a series of questions regarding the last purchase of various commodities is asked of consumers. The reliability was investigated by using a repeat interview technique with the same interviewer and the same respondent after an interval of 48 hours, under the pretense that the record of the first interview had been lost. The percent of respondents naming the same brand purchased on the repeat interview ranged from 85 to 97 for 18 commodities. The conclusion is drawn that the Psychological Brand Barometers have high reliability.—S. Roslow (Psychological Corporation).
6074. Johnson, LeV. **Driver tests and accidents.** *Publ. Safety*, 1938, June. Pp. 2.—A popular discussion of some of the results of tests administered to 25,000 drivers by the A.A.A.—H. Schlosberg (Brown).
6075. Kranz, H. W., & Koller, S. **Die Umweltbedingtheit beruflicher Fruchtbarkeitsunterschiede.** (Differences in vocational productivity as conditioned by environment.) *Arch. BevölkWiss. BevölkPolit.*, 1938, 8, 84-103.—P. L. Krieger (Leipzig).
6076. MacDonald, T. H. [Dir.] **Highway accidents: their causes and recommendations for their prevention.** Washington: U. S. Govt. Printing Office, 1938. Pp. 38. \$0.10.—Findings and recommendations resulting from a series of studies made by the Bureau of Public Roads in co-operation with the Highway Research Board. The following topics are treated: non-uniformity of motor-vehicle traffic laws, accident-prone drivers, case histories of fatal highway accidents, investigation at the scene of the accident, state motor-vehicle accident reporting, official inspection of vehicles, and highway policing.—H. Schlosberg (Brown).
6077. Mitchell, G. E., & Burt, H. E. **Psychological factors in the sales interview.** *J. appl. Psychol.*, 1938, 22, 17-31.—In this study four contrasting methods of selling were used by one salesman (experimenter) upon the prospects (subjects) in an experiment simulating a sales interview. The methods were: (1) a demonstration versus an oral elaboration; (2) presentation of facts versus short-circuit appeals; (3) a breezy versus a dignified approach; and (4) a domineering versus a friendly approach. The relative effectiveness of the contrasting members of each method was judged by a rating scale executed both by the salesman and the customer immediately after the interview. Results indicated that the demonstration, factual, and friendly approaches were superior to their respective opposites, but that there was no significant difference between the breezy and dignified approaches.—S. Roslow (Psychological Corporation).
6078. **National Industrial Conference Board. Studies in personnel policy. No. 8: Plans for rating employees.** New York: Author, 1938. Pp. 39. \$2.00.—R. R. Willoughby (Brown).
6079. Nestor, I. M. **Principii despre psihotehnica.** (Principles of psychotechnology.) *J. Psihoteh.*, 1937, 1, 13-25.—R. R. Willoughby (Brown).
6080. Raphael, W. **Report on an inquiry into labour turnover in the London district.** *Occup. Psychol.*, 1938, 12, 196-214.—This is a report of a survey made by the National Institute of Industrial Psychology of the labour turnover rates in 86 firms with a total of 54,257 employees.—H. Moore (Mt. Holyoke).
6081. Soskine, L. **[Development of medical methods for vocational selection.]** *Gig. Bezopas. Trud.*, 1936, 2, 35-41.—An account of the examination of soldiers in a tank corps. There is considerable stress on acuity of vision, hearing, and smell, as well as conventional medical measures.—H. E. Burt (Ohio State).
6082. Tait, W. D., & Morton, N. W. **Industrial psychology in Canada.** *Occup. Psychol.*, 1938, 12, 224-233.—This is a brief account of the organizations in Canada, centered chiefly in Toronto and Montreal, which are working in the interests of vocational guidance and industrial psychology. The Ontario Vocational Guidance Association works in a similar manner to the U. S. National Vocational Guidance Association, and the Psychological Institute in Montreal, organized in 1936 to provide consultation service, is affiliated with the British National Institute of Industrial Psychology, and devotes most of its efforts to vocational counseling. Supplementing these are: an accident laboratory at the University of Toronto to which problem cases are referred by the Ontario Workman's Compensation Board and by private companies, demonstrations of motor drivers' tests at motor shows, personnel associations in both Toronto and Montreal, and training courses in various phases of industrial and vocational psychology.—H. Moore (Mt. Holyoke).
- [See also abstracts 5626, 5648, 5795, 5818, 5834, 5850, 6018, 6097.]

EDUCATIONAL PSYCHOLOGY

(incl. Vocational Guidance)

6083. Avery, C. E., & Williamson, E. G. **Achievement of students in subfreshman composition.** *J. educ. Psychol.*, 1938, 29, 257-267.—Students deficient in English composition are required to pass a 3-hour quarter course before entering the regular freshman composition course. Study of the performance of these students in the freshman composition course shows that the subfreshman course did not successfully prepare most of the students to pass the placement test for the regular composition course, even though the students who passed the subfreshman course automatically became eligible to enroll in the composition course. Nevertheless, a significant number of students who passed the subfreshman course were able to do satisfactory work in

the regular composition course despite the fact that they had not met the requirements of the placement system. Educational implications of these findings are discussed.—*A. W. Melton* (Missouri).

6084. **Brendgen, F.** *Über den Wert der Tiefenpsychologie für die Berufsberatung.* (The value of depth psychology in vocational guidance.) *Z. ges. Neurol. Psychiat.*, 1938, 161, 498-511.—Vocational guidance must decide what a person has to offer for professional efficiency; without knowledge of his unconscious motivation an answer is impossible. In the discussion Villinger (Bethel) pointed out that vocational advice cannot do more than eliminate the totally unfit person; efficiency in the profession is the best test. Kretschmer (Marburg) is very ambivalent toward the use of any test which attempts to eliminate the personality of the examiner; psychiatric prestige is of less importance than personal history. G. A. Roemer (Stuttgart) is of the same opinion after 20 years of practice in vocational guidance. His examinations are supplemented by careful observation of all tested persons during their practical work over a period of three years. The Rorschach test is one-sided and unclear in its basic concepts. Without depth psychology this test will give incomplete results for vocational guidance. Weygand (Wiesbaden) called experimental psychology a method which may be used from every point of view, not merely from the materialistic-mechanistic one.—*M. Grotjahn* (Mening Clinic).

6085. **Bujas, R., & Bujas, Z.** *Die Distribution der Noten als Mittel zur Bestimmung der Schwere des Lehrplans.* (Distribution of grades as a measure of difficulty of curriculum.) *Acta Inst. psychol. Univ. Zagreb*, 1937, 2, No. 3. Pp. 6.—The grades received in mathematics and religion by some 2400 pupils in grades 3, 7, and 8 of the Zagreb schools showed asymmetrical distributions. Four grades were used; the mode of the mathematics curve was much below a normal distribution, while that for religion was above normal. It is concluded that the demands put upon the pupil by the two curricula are unequal, with mathematics far more difficult, despite the fact that over half the entire group fell in the third grade. The selective factor operating for those who reached the eighth grade does not change the relative positions.—*H. D. Spoerl* (American International College).

6086. **Carroll, D., & Odlums, D.** *Corporal punishment; memorandum presented on behalf of the National Council for Mental Hygiene to the Home Office Departmental Committee on Corporal Punishment.* *Ment. Hyg., Lond.*, 1938, 4, 55-60.—*R. R. Willoughby* (Brown).

6087. **Coon, B. I.** *Psychology and methods in the high school and college: home economics.* *Rev. educ. Res.*, 1938, 8, 42-46.—*R. R. Willoughby* (Brown).

6088. **Cowen, P. A.** *Special class vs. grade groups for subnormal pupils.* *Sch. & Soc.*, 1938, 48, 27-28.—The author criticizes Pertsch's "A Comparative

Study of the Progress of Subnormal Pupils in the Grades and Special Classes" (Ph.D. thesis, Teachers College, Columbia, 1936). He claims that the groups studied were not properly matched, that if the data of the test scores given had been handled differently the results would have been reversed, and that the five-month interval between tests is too short when measuring students with low IQ's.—*M. Lee* (Chicago).

6089. **Crothers, B.** *Education of the handicapped child.* *Amer. J. publ. Hlth.*, 1938, 28, 340-342.—(*Child Developm. Abstr.* XII: 1256).

6090. **Dwyer, P. S.** *An analysis of 19 occupational scores of the Strong vocational interest test given to 418 students entering the University of Michigan medical school during the years 1928, 1929, 1930.* *J. appl. Psychol.*, 1938, 22, 8-16.—The intercorrelations among the 19 occupational scales of the Strong interest blank were subjected to a factor analysis, revealing that 4 factors could produce the correlations to within small errors. On the basis of the analysis four fundamental occupations were selected as giving the best estimation of the four primary traits. These were physicist, journalist, minister, and life insurance salesman. Multiple correlations predicted from these four for each of the other occupations were not much less than the coefficients which would be obtained by predicting each occupation from the remaining occupations, except for C.P.A. and farmer. The study gives the multipliers by which the scores on the different occupations may be obtained from the scores on the four fundamental occupations.—*S. Roslow* (Psychological Corporation).

6091. **Engelhart, M. D.** *The nature of the abilities required in the survey courses of the Chicago city junior colleges.* *J. exp. Educ.*, 1938, 6, 318-325.—The original data used in this study are scores on six comprehensive examinations and on an intelligence test, the psychological examination of the American Council on Education. The results support the contention that the survey courses qualify as survey courses in that the abilities required are largely common. While special talent may be required for superlative achievement in a given survey course, average or even superior achievement is possible for the student of average or superior status with respect to the general ability. Conversely, satisfactory achievement in a given survey course is possible for any student whose achievement in the other surveys is satisfactory. If a student's achievement in one survey course is unsatisfactory while his achievement in the others is satisfactory, the failure is probably the result of lack of interest because of inadequate motivation rather than the lack of some special ability.—*H. W. Karn* (Pittsburgh).

6092. **Finzel, G.** *Schulrangreihe im Vergleich zu den Ergebnissen der Intelligenzprüfungen.* (Class ranking compared with the results of intelligence tests.) *Z. pädag. Psychol.*, 1938, 39, 144-150.—Finzel studied the relations between class standing

and tests for immediate mechanical memory, logical combination, and logical verbal memory in sixth-grade girls. In only 3 pupils did the two rankings agree. The capacity for logical combination showed the greatest discrepancies, and these in the middle of the class. The pupils ranking higher in marks than in intelligence (A's) owed their position chiefly to memory, attention, and practical intelligence. The poorer scholars (B's) actually surpassed the A's in logical and differentiating ability, but were deficient in memory and attention. The A's were receptive, of the visual type, and even workers, while the B's were more independent and original, but erratic workers, often having personality difficulties. Marks measure, in order, logical verbal memory, logical memory, immediate mechanical memory, and logical combination. Only the ambitious, receptive and uncritical pupil will absorb sufficient "ballast" to get high marks. The discrepancies here demonstrated are proof that the school neglects certain essential factors of personality.—*M. E. Morse* (Baltimore).

6093. **Fitzpatrick, E. A.** Needed research in teaching religion in the elementary school. *Cath. Sch. J.*, 1938, 38, 157-159.—Religious teaching needs a better understanding of the will and of feelings, emotions, appreciations, and attitudes.—*W. L. Wilkins* (Springfield Junior College).

6094. **Graewe, H.** Die Bedeutung der Zwillingsforschung für die Erziehungslehre. (The importance of studies on twins for educational theory.) *Z. pädag. Psychol.*, 1938, 39, 151-154.—A review of the recent German literature on various aspects of the twin problem. Teachers are in an exceptionally favorable position to contribute to this question, since they often have opportunities to observe twins for several years under natural circumstances.—*M. E. Morse* (Baltimore).

6095. **Henry, E. R.** A survey of courses in psychology offered by undergraduate colleges of liberal arts. *Psychol. Bull.*, 1938, 35, 430-435.—This is a report of a survey of the regular catalogues of 157 colleges of liberal arts concerning (1) the plan of instruction with regard to lecture and laboratory in the beginning course in psychology, (2) the frequency of the requirement of psychology for graduation, (3) the extent of advanced laboratory instruction in general experimental psychology, and (4) other advanced courses offered.—*A. W. Melton* (Missouri).

6096. **Hilden, A. H.** Training kindergarten teachers to test their pupils on the Stanford-Binet scale. *Sch. & Soc.*, 1938, 48, 123-124.—Although it is desirable to obtain the IQ's of kindergarten children, few schools can afford to employ a trained psychologist. To determine whether it is possible so to train teachers that they may procure reliable test results was the object of the present study. More than 100 teachers were given lectures, demonstrations, and supervision in testing of 3000 children during one year. The test blanks were rescored until no unreasonable mistakes occurred, and at the end of the year 274 of the children were

retested by a trained psychologist. The correlation between tests was .89. The probable error of estimate was 4.7 IQ points. As this compares favorably with other retest correlations reported, it indicates that teachers may sometimes be thus trained and used in the early study of children.—*M. Lee* (Chicago).

6097. **Hochholzer, H.** Berufswünsche und Berufsorgen—untersucht an Wiener Lehrlingmädchen. (Vocational wishes and difficulties, as studied in Viennese girl apprentices.) *Z. pädag. Psychol.*, 1938, 39, 137-143.—Insight into personality attitudes was sought through questionnaires on 748 apprentices, 14-19 years old, in the clothing industry. The answers showed that beginners had no choice of occupations, but were glad to get any kind of work. Few had any vocational preferences. Those expressed were for feminine occupations of the "glamorous" type, and represented social striving. Attitudes toward work showed three changes determined by age: 14-17, a childish pleasure, akin to the play instinct; at 17 years, a critical attitude, soon fading into the vocational indifference of the average adult. The first three wishes for further development were, at all ages, foreign languages, beauty culture, and child care; but by 19 years the urges to learn and to please receded before the maternal urge. There was little desire for self-fulfilment through any vocation. The questionnaire brings out a double life of practicality and fantasy. Nevertheless, a considerable part of the girls' cherished wishes remained fixed and were guided by unselfish feminine instinct.—*M. E. Morse* (Baltimore).

6098. **Isabella, Sister M.** Individual adjustment of pupils. *Cath. Sch. J.*, 1937, 37, 351-352.—Recommendation that schools utilize an expert in social adjustment to facilitate socialization of individual pupils.—*W. L. Wilkins* (Springfield Junior College).

6099. **Klinkebiel, F.** Die Aufgaben der Wollen-erziehung bei Hilfsschülern. (The task of educating the will in special school children.) Leipzig: Arman-enverlag, 1938. RM. 2.—*P. L. Krieger* (Leipzig).

6100. **Knudsen, C. W., & others.** Psychology and methods in the high school and college. *Rev. educ. Res.*, 1938, 8, 1-102.—*R. R. Willoughby* (Brown).

6101. **Lauer, A. R.** Measurement of cultural knowledge. *J. educ. Psychol.*, 1938, 29, 287-294.—Three parallel forms of a test of 150 multiple-choice items representing knowledge about painting, music, architecture, sculpture, drama, literature, and non-artistic culture were constructed. The testee indicated the one of the seven categories to which the phrase, term, descriptive words, or name of a man referred. The test was given to 2089 high-school, college, and university students representing every section of the U.S.A. There is a gradual growth in cultural knowledge during and after the period of formal education except for male students from the sophomore to the senior level, when a slight recession occurs. Women are superior to men on most items at all levels of educational accomplishment. Persons of English and American stock showed superior

ratings. The best known subject-matter was music and literature, and drama and sculpture were the least known. The agreement of widely separated geographical groups on certain items suggests that American culture is significantly homogeneous.—*A. W. Melton* (Missouri).

6102. **Lloyd-Jones, E. McD., & Smith, M. R.** *A student personnel program for higher education.* New York: McGraw-Hill, 1938. Pp. x + 322. \$2.75.—This book outlines a total personnel program, treating it as an integral part of higher education. It is to be carried out jointly by personnel workers and faculty, co-ordinated by one personnel director. In addition to three chapters of general discussion, there is one chapter for each of the following topics: selection and admissions, orientation, counseling, discipline, educational and vocational guidance, financial aid, extracurricular activities, housing, health, religion, placement, student personnel records, office administration, and research and evaluation. An appendix presents a classified list of some 700 tests.—*H. Schlosberg* (Brown).

6103. **Marshall, M. V.** *Guided study with college juniors.* *Sch. & Soc.*, 1938, 48, 28.—In this investigation students in educational psychology were divided into two equated groups. The experimental group was drilled in underlining key words in the text used and given questions on the main points covered. When given the same objective test on the first unit of work there was a large difference in favor of the experimental group. On a second unit of work the difference was less large, which the author thinks is due to a partial utilization in the experimental group of questions and methods used by the control group. He concludes that (as Gates has found to be the case with grammar school children) college juniors "can increase the efficiency of their study by the use of aids which stimulate self recitation."—*M. Lee* (Chicago).

6104. **Prindiville, J. V.** *Pupil negativism.* *Cath. educ. Rev.*, 1938, 36, 219-221.—Pupils who co-operate in such school activities as the school paper were found to be brighter, to earn better grades, and to be absent less.—*W. L. Wilkins* (Springfield Junior College).

6105. **Punke, H. H.** *Economic status of families supplying high-school pupils.* *Sch. & Soc.*, 1938, 48, 89-92.—The data utilized are reports of pupils in 11 Illinois and 11 white Georgia high schools in regard to travel, domestic servants, and conveniences in the home. Extensive comparisons are given, with speculative interpretations. Some summary statements of fact are: more pupils in both states have electric lights than radios; in Georgia more boys than girls have both radios and telephones, and the reverse is true in Illinois; in Georgia more girls than boys report servants; those without radios and telephones and who have not traveled are more confident of having servants later than others; the higher the vocational status the more servants reported, but more girls expect to have servants than boys; children of laborers and farmers do the most non-

school work and report the least leisure time reading.—*M. Lee* (Chicago).

6106. **Quaid, T. D. D.** *A study in the prediction of college freshmen marks.* *J. exp. Educ.*, 1938, 8, 350-375.—The evidence from this study shows that there is little to choose between the predictive efficiency of high school average marks and Ohio State University psychological examination scores, when no distinction of sexes is made. High school marks predict college marks for boys better than for girls; Ohio State examination scores predict marks better for boys in the lower part of the curve, while the reverse is true in the upper part. Prediction by the A. C. E. test is inferior to that of the high school average or Ohio State examination; but the order of efficiency as between the sexes and as between the upper and lower parts of the curve is the same as that of the Ohio State examination. Analysis of correlations between specific high school subjects or subject fields and corresponding college subjects or fields yields little evidence to support the practice of demanding prerequisites or credit-patterns in high school as essential to success in college.—*H. W. Karn* (Pittsburgh).

6107. **Rinsland, M. A. O.** *A test for measuring teachers' knowledge of the conduct and personality of children from six to eight years of age.* *J. exp. Educ.*, 1938, 6, 307-317.—The test described is an objective type multiple choice form, with five possible choices for each item. A key of answers to the 134 items of the test was derived from the pooled opinion of nine experts in the fields of education, psychology, and child development. After examining the distribution of the scores of 252 teachers from nine of the better schools of three states of the southwest, the test was found to be diagnostic because of its high discrimination, high curricular validity, and high reliability.—*H. W. Karn* (Pittsburgh).

6108. **Rodger, A.** *Vocational guidance: a review of some doubts.* *Occup. Psychol.*, 1938, 12, 187-195.—Some of the obstacles in the way of those who wish to offer vocational guidance are: (1) Employment choices are too limited. This "no-choice" myth is largely due to the fact that parents are over-anxious for security or are too lazy to investigate the occupational field, or do not know how or have not the time to investigate it. (2) One's occupational interests are sufficient guides. The misfits these guides produce give proof of their unreliability. (3) Young people are adaptable. Limitations preclude many mental adaptations just as they do many physical ones. (4) Young people should experience difficulties. But they should be surmountable. (5) Psychologists overestimate the value of tests. Most psychologists regard tests as supplements to, not substitutes for, the usual sources of information. (6) Vocational guidance leads to an unfair labeling of late developers. Labeling based on a close study of fact and opinion is more reliable than the customary kind. (7) Vocational guidance may lead to harmful introspection and have

an unsettling effect on tentative aims. If not unsettled now they may lead to disorders later. (8) Other people who have known the advisee for a longer time can give vocational guidance better than a psychologist. One must gain an objective appraisal of an advisee, and estimate its occupational significance.—H. Moore (Mt. Holyoke).

6109. Scott, C. M. Background and personal data as factors in the prediction of scholastic success in college. *J. appl. Psychol.*, 1938, 22, 42-49.—A questionnaire containing background and personal data items was administered to 280 freshmen attending the Colorado State College of Education. The American Council Psychological Examination and the English and elementary tests from the Entrance and Classification Examination for Teachers Colleges were also given. These tests and the questionnaire were used to predict scholarship grades at the end of the first year of college. The items in the questionnaire received weights so that a single score was obtained for the questionnaire as a whole. Multiple correlations to predict grades were computed with and without the questionnaire and were .723 and .743 respectively. An analysis of the separate items revealed that there were differences which might have a bearing upon success in college.—S. Roslow (Psychological Corporation).

6110. Stuit, D. B. Fluctuations in correlation between psychological test scores and university grades. *J. exp. Educ.*, 1938, 6, 343-345.—"The magnitudes of the coefficients of correlation measuring the relationship between Ohio psychological test scores and university grades of Teachers College freshmen at the University of Nebraska tend to fluctuate from semester to semester and from year to year. While a drop in the magnitude of the coefficients of correlation for the second semester might be expected, such was not found to be the case in the present investigation. The causes of the fluctuations cannot be identified through the study of averages and standard deviations. A critical study should be made of individual students in order to discover those factors which cause the magnitudes of the coefficients to fluctuate."—H. W. Karn (Pittsburgh).

6111. Valentine, W. L. Report of a survey conducted by the motion picture committee. *Psychol. Bull.*, 1938, 35, 423-429.—This is a report of the results of a questionnaire answered by 201 individuals in 156 different institutions regarding (1) the extent to which the universities or colleges are equipped to use films of the silent or sound type, (2) the use that has already been made of the equipment, (3) the plans for future use, (4) obstacles to the use of films, and (5) opinion concerning the relative effectiveness of films and demonstrations.—A. W. Melton (Missouri).

6112. Williamson, E. G. A further analysis of the Young-Estabrooks studiousness scale. *J. appl. Psychol.*, 1938, 22, 105.—The Young-Estabrooks scale was administered to 539 freshmen at the University of Minnesota. The correlation with

first-quarter honor-point ratio was .20, indicating negligible validity for the scale with the freshmen at Minnesota.—S. Roslow (Psychological Corporation).

[See also abstracts 5674, 5798, 5820, 5937, 5971, 5988, 6003, 6004, 6014, 6019, 6049, 6118, 6124, 6137, 6138, 6139.]

MENTAL TESTS

6113. Bond, E. A. Some verbal aspects of the 1937 revision of the Stanford-Binet intelligence test, form L. *J. exp. Educ.*, 1938, 6, 340-342.—In this study 65 ninth grade children who were good readers were matched with 65 ninth grade children who were poor readers on the basis of three criteria: sex, CA and revised Binet IQ. An analysis of the errors on each Binet test item was made. It was found that the poor readers had one or two fewer errors on most of the items, with the exception of vocabulary, abstract words and sentence building. With these verbal items the poor readers were inferior. IQ's were next established by regrading each of the Binet tests, omitting the verbal items. The results of this treatment changed some of the IQ's as much as 15 points, usually in favor of the poor readers; in fact, after the corrections had been made, the poor readers, on the average, had a higher IQ than the good readers. The author suggests on the basis of these findings that the verbal items reported should be omitted in determining IQ's of poor readers.—H. W. Karn (Pittsburgh).

6114. Dunlap, J. W. The relationship between the type of question and scoring errors. *J. exp. Educ.*, 1938, 6, 376-379.—An analysis of the errors made by a group of scorers of a large number of Terman group tests of mental ability revealed that some types of questions are more likely to be mis-scored than others. This is particularly true of the true-false, yes-no, and same-opposite tests, where the subject is required to underline one of the terms, and for tests where the subject underlines two words in the text.—H. W. Karn (Pittsburgh).

6115. Hunsicker, L. Concerning tests and testing. *Cath. Sch. J.*, 1938, 38, 166-167.—W. L. Wilkins (Springfield Junior College).

6116. Madigan, M. E. A study of oscillation as a unitary trait. *J. exp. Educ.*, 1938, 6, 332-339.—The aim of this study was to apply the scheme of intercorrelations, tetrads, and factorial analysis, in connection with other variables, to ascertain the existence of oscillation as a unitary trait. Some 30 variables presumably involving the assumed factors of oscillation, perseveration, spatial relations, mental speed, motor speed, attention, fluency, and memory were selected. This battery was given to 117 adults. The tests utilized were some of those previously administered to children in the Spearman-Holzinger unitary traits study. In general, the facts indicate that oscillation is a very definite and sensitive component in human abilities. Also included in the report is a consideration of the validity and reliability.

bility of the oscillation tests, the effects of two methods of scoring them, and a comparison of oscillation in children with that in adults.—*H. W. Karn* (Pittsburgh).

[See also abstracts 5648, 6070, 6096.]

CHILDHOOD AND ADOLESCENCE

6117. Ackerman, N. W. Constructive and destructive tendencies in children; an experimental study. *Amer. J. Orthopsychiat.*, 1938, 8, 265-285.—This is a quantitative study of the differences in constructive-destructive play performance of different age groups of well adjusted, maladjusted, and delinquent children. The method employed is a "modification of play technique in which the toy materials and experimental situation are so arranged as to provide an optimal degree of freedom for the enactment of constructive and destructive impulses alike." Scores are derived from the manner in which a child starts his play with each type of toy. There are indications that as a child grows older in a well adjusted direction, there is an increase of activity of a flexible type; as he grows older in a maladjusted direction, there is an exaggerated increase in both constructive and destructive activity of a relatively rigid type. 3 pictures, 9 tables and 9 charts are included.—*S. W. Bijou* (Delaware State Hospital).

6118. Andrus, R., & Horowitz, E. L. The effect of nursery school training: insecurity feelings. *Child Developm.*, 1938, 9, 169-174.—Indices of security-insecurity feelings of the individual children were secured from teachers' ratings. These ratings were secured from questionnaires, each item of which denoted a symptom of insecurity. For each child there were three raters. Intercorrelations of total scores assigned by the different raters averaged .58 (corrected by the Spearman-Brown formula .81). The median correlation between scale score (insecurity) and length of time in the nursery school, chronological age partialled out, was .15. Correlations for the various items of the scale and insecurity are presented. These correlations show great variations. Correlations between chronological age and score, training held constant, are mostly negative. Thus chronological age and training develop in opposite directions. It is stated that the relation between training and insecurity feelings has not been determined.—*C. N. Cofer* (Brown).

6119. Brander, T. Über die Bedeutung des unternormalen Geburtsgewichts für die weitere körperliche und geistige Entwicklung der Zwillinge. (The significance of subnormal weight at birth for subsequent physical and mental development of twins.) *Z. mensch. Vererb.- u. Konst. Lehre*, 1938, 21, 306-313.—The proportion of prematurely born twins is very high. Such premature children show a number of unusual characteristics in their physical and mental development. Physical development is usually retarded, especially in the lower categories of weight at birth. There are present also various other physical peculiarities, so-called "pre-

mature birth stigmata." The average IQ of premature children decreases in proportion to the average weight at birth. In the case of identical twins, the twin with the greater weight at birth frequently shows a much higher IQ.—*S. W. Downs* (Berkeley, Calif.).

6120. Brown, G. D. The development of diabetic children, with special reference to mental and personality comparisons. *Child Developm.*, 1938, 9, 175-184.—This study concerns differences between the diabetic and normal child in physique, intelligence, and personality. 60 diabetic children and, as controls, 60 of their siblings, were used. The diabetic group contained more girls than boys. Questionnaires filled in by parents and psychometric examinations furnished data. The general health of the diabetics compared favorably with that of the normals. Their intelligence scores were distributed normally. Ratings on the Woodworth-Cady psychoneurotic inventory showed approximately equivalent distributions for the diabetics and normals. Parents felt that personality changed but little because of diabetes, except for an increased excitability and irritability after onset of the disease. School achievement of the diabetics compared favorably with that of the siblings.—*C. N. Cofer* (Brown).

6121. Dixon, C. M. High, wide and deep; discovering the preschool child. New York: Reynal & Hitchcock, 1938. Pp. 319. \$3.00.—*R. R. Wiloughby* (Brown).

6122. Dukes, E. Play-therapy for "problem" children. *Brit. J. Med.*, 1938, Part 2, 213-215.—*W. J. Brogden* (Johns Hopkins).

6123. Hamburger, T. [Punishment as an aid in training the child.] *Med. Klinik*, 1937, 33, 753.—Punishment is indispensable in child training. Generally it is of value in teaching prohibitions; it is rarely of value in teaching accomplishment. Punishment can be begun about the ninth or tenth month. A slap accompanied by "No! No!" soon establishes a conditioned reflex, so that in most instances only the verbal prohibition becomes necessary. A child respects a slap as he respects a burn from a hot stove. After the second year other forms of punishment can be used, as isolation or deprivation of a pleasure.—*J. P. Robertson* (Brown).

6124. Heinen, A. Schulleistungen, väterlicher Beruf und Kinderzahl. (School performance, father's vocation, and number of children.) *Z. mensch. Vererb.- u. Konst. Lehre*, 1938, 21, 599-608.—The study deals with 3971 pupils in the elementary schools of Bremen. The average number of pupils per family was 3.02. The vocations of the fathers fell into 4 major categories, ranging from the higher professions to unskilled labor. Among the findings were: The greater the mental endowment of the child, the smaller is the number of children in his family. The majority of the children in the accelerated classes come from families in the higher vocational groups. There are twice as many children of unskilled laborers in classes for subnormal as the

average for all vocational groups.—S. W. Downs (Berkeley, Calif.).

6125. Hicks, J. A., & Hayes, M. Study of the characteristics of two hundred fifty junior high school children. *Child Developm.*, 1938, 9, 219-242.—Interviews, controlled observations, objective tests, ratings, etc., were used to study the personality development of the children, who were students in Albany, N. Y. Data are presented concerning matters such as the following: intelligence, occupational status of the home, number of books in the home, evening activities, parent-child relationships, radio listening, allowances, clubs, non-school activities, sports, magazines and books read, movie attendance, parties and dances, chums, school subjects and clubs, studying, vocational choices, religious interests, worries, fears, dreams, imagination, wishes, original writing, physical health, personality ratings, verbal responses in classrooms, and school marks.—C. N. Cofer (Brown).

6126. Hohman, L. B. Conduct disorders in childhood. *N. J. med. Soc. J.*, 1938, 35, 10-17.—R. R. Willoughby (Brown).

6127. Johnson, G. The needs of youth. *Cath. educ. Rev.*, 1938, 36, 3-16.—Implications of the studies of the American Youth Commission.—W. L. Wilkins (Springfield Junior College).

6128. Kelly, W. A. The unsocial problem child. *Cath. Sch. Interests*, 1937, 15, 105-107.—Practically all unsocial behavior originates in failure to satisfy two fundamental needs of the child, security and opportunity for the exercise of initiative.—W. L. Wilkins (Springfield Junior College).

6129. Klein, H., & Palmer, C. E. Studies on dental caries: VI. Caries experience and variation in the time of eruption of the permanent teeth. *Child Developm.*, 1938, 9, 203-218.—This study deals with the association between the relative time of eruption of the lower first permanent molar teeth and the caries experience found therein. 4400 white elementary-school children of Hagerstown, Md., were the subjects. Children whose permanent teeth erupt early have at comparable chronological ages higher absolute levels of caries experience than do children who erupt their permanent teeth late. However, this fact is due to the greater opportunity for caries experience with early eruption, and there seem to be no significant differences between early and late eruptors in their caries attack rates per year of mouth exposure (tooth age).—C. N. Cofer (Brown).

6130. Krampflichtek, H. Die Angst im Kindesalter. (Anxiety in childhood.) *Z. Kinderpsychiat.*, 1938, 5, 11-18.—First installment of an article discussing the general aspects of anxiety in childhood. Complete absence of anxiety is abnormal, anxiety being necessary to the preservation of life. To understand anxiety thoroughly it is necessary to examine its expression in relation to the total personality. Anxiety appears in the first months of life. The most common forms of it then are pavor

nocturnus and other disturbances of sleep.—D. Shakow (Worcester State Hospital).

6131. Leconte-Lorsignol, S. Evolution des troubles de l'intelligence et du caractère à la puberté. (The evolution of disturbances in intelligence and character at puberty.) Cahors: Thèse de Médecine de la Faculté de Paris, 1938. Pp. 90.—Puberty is not a transformation of the organism; it marks the end of a period of evolution whereby genital maturity is attained. From the point of view of intelligence, we find that puberty marks the end of its rise; after this period man may grow wiser but he does not grow more intelligent. The same is true for mentally retarded cases. The principal tendencies in adolescent mentality are found to be hypertrophic in dementia praecox: reverie and rationalization. Determinant traits of character, without having been created at this period, seem to become irremediably fixed at this time. Sexuality becomes enriched by a new factor, the function of reproduction, and if perversions are to take place, they will most probably arise during puberty. Parallelism between physical and mental puberty is not absolute.—G. Goldman (Sorbonne).

6132. Lima, A., & Ignacio, L. O biotipo do escolar em Pernambuco. (The biotype of pupils in Pernambuco.) *Bol. Educ., Pernambuco*, 1936, 79-89.—Anthropometric data on over 2000 pupils from 7 to 14 years of age.—H. E. Burt (Ohio State).

6133. Low, A. A. References to sex organs and functions in speech productions of two preschool children. *Arch. Neurol. Psychiat.*, 1938, 39, 519-535.—Low concludes that both children's references to the genital sphere were numerically insignificant as compared with the number of references to the other body spheres, and were mainly prompted by environmental factors, to the almost complete exclusion of the factor of spontaneous interest.—W. Marshall (Appleton Clinic, Wis.).

6134. McCaskill, C. L., & Wellman, B. L. A study of common motor achievements at the preschool ages. *Child Developm.*, 1938, 9, 141-150.—98 children, two to six years of age, in the Iowa preschool laboratories took tests of motor development, such as ascending and descending ladders and steps, hopping, skipping, jumping, balancing on a path and a curve, ball throwing, ball catching, and ball bouncing. 46 retests after a week gave an r of .98 with original tests. Scores were assigned to stages of each skill according to difficulty as evidenced by the percentage of subjects accomplishing them. Similar test items were grouped into four "partial score groups." Correlations among these groups ranged from .40 to .84. All but two of these were higher for girls than for boys. Significant gains in score were found between most of the increasing age groups. Slight sex differences appeared. There was a negligible relationship between motor score and ascendance scores. Motor age was determined for each stage of development at each skill, and the performances were tabulated according to motor age.

73 stages were assigned motor ages.—C. N. Cofer (Brown).

6135. McHugh, W. H. The American youth problem. *Cath. educ. Rev.*, 1938, 36, 257-266.—Suggestions for the personality study of children in terms of familial, individual, and social backgrounds.—W. L. Wilkins (Springfield Junior College).

6136. Meredith, H. V. An empirical concept of physical growth. *Child Developm.*, 1938, 9, 161-167.—Several definitions of the terms growth and development are considered, and it is concluded that no useful and significant distinction between the two has yet been made. Physical growth is regarded as "the total series of bodily or structural changes found to characterize the ontogenetic life history of the individual." Several such changes may be distinguished, and these are considered to be changes in size, changes in complexity, changes in proportion, and changes in texture and pigmentation. It is emphasized that these changes may occur in more than one direction, and illustrations of each are cited.—C. N. Cofer (Brown).

6137. Miller, R. Some principles of child discipline. *Lancet*, 1937, No. 2, 1469-1472.—R. R. Willoughby (Brown).

6138. Moore, S. B. The use of commands, suggestions, and requests by nursery school and kindergarten teachers. *Child Developm.*, 1938, 9, 185-201.—36 nursery-school children, 18 of each sex, divided into groups of 12 at two, three, and four years of age and with IQ's from 89 to 135, and 42 kindergarten children, ages four and five, with IQ's from 75 to 140, served as subjects in this study. Observations of teacher-child relationships were made, and a record blank was used for recordings. Words spoken by the teachers were classified as commands, commands with reasons, negative commands, suggestions, and requests. Sex differences were slight in regard to the number of each type used. Suggestions and requests were used more frequently with higher IQ groups, in the morning, and with the older groups than with lower groups and in the afternoon. Teacher help decreased with the age of the child. Response to suggestions was quickest. Repetitions of commands, etc., were infrequent, and few instructions were not obeyed. The teachers differed only slightly in their use of each type of instruction.—C. N. Cofer (Brown).

6139. Munkres, A. Personality studies of six-year-old children in classroom situations. *Teach. Coll. Contrib. Educ.*, 1936, No. 681. Pp. viii + 181.—A diary record of observations of predetermined areas of experience was made for 10 children (including one pair of identical twins) in the classroom situation. The data are analyzed on the basis of estimates of personality and are classified. "Distinct personality pictures emerge for the 10 case studies." The values and limitations of the method are pointed out. The use of the method in training teachers is discussed. A classified bibliography lists 32 titles.—J. M. Stalnaker (Princeton).

6140. Strang, R. An introduction to child study. (2nd ed.) New York: Macmillan, 1938. Pp. 681. \$3.00.—The present edition of this text includes material which has appeared in the eight years since the first edition was published. The "emphasis is on service aspect rather than on research methods." The 21 chapters deal with infancy, early preschool, later preschool, primary, primary to adolescent, and adolescent periods. Each of these divisions includes, among other aspects, the learning of the particular age group and problems peculiar to the period. Each chapter is followed by questions, problems, and bibliography. The appendices include height-weight tables and appropriate play materials (by years). There are illustrations, tables, and subject and author indexes. Since the book is written primarily for "those who are planning to continue their study—and to supply the minimal essentials to parents and teachers" there are frequent chapters on "how to study" children of the particular age group under discussion. Concrete examples are also given throughout of present-day methods of dealing with children.—F. M. Teagarden (Pittsburgh).

6141. Valentine, C. W. A study of the beginnings and significance of play in infancy. Part I. *Brit. J. educ. Psychol.*, 1938, 8, 188-200.—Starting with the definition of play as any activity which is carried out entirely for its own sake, observations are recorded on the author's five children from the earliest months over a period of twenty years. Playing with hand movements, with production of sounds, and handling of any and every object first appear. Satisfying an appetite for sensation, movement, and manipulation characterize the play from 6 to 12 months. New bodily performances, the beginnings of social play with imitation, and some make-believe are noted for the months from the 12th to 18th.—K. M. Cowdery (Stanford).

6142. Vincent, E. L. Some suggestions for approaching children and their parents: part I. *J. Pediat.*, 1937, 11, 697-742.—R. R. Willoughby (Brown).

6143. Wilson, F. T. Concepts of children and college students expressed with twenty words of the action-agent test. *Child Developm.*, 1938, 9, 63-67.—"On a test of twenty action-agent words, as compared with 129 college students, 100 children of kindergarten and grade one showed: (1) a lesser percentage of most common and generalized concepts; (2) a greater variety of specific concept responses; (3) a greater percentage of personal, general and loose, and incorrect concepts; (4) a greater percentage of childish terms and phrases; (5) about the same percentage of unusual or special meanings, which, however, tended to be indicative of child rather than adult experiences. College students showed an appreciable percentage of general and loose, and of incorrect responses to these familiar words."—F. D. McTeer (Wayne).

[See also abstracts 5625, 5653, 5886, 5917, 5928, 5934, 5941, 5950, 5954, 5976, 5990, 5997, 5998, 6015, 6029, 6051, 6055, 6089, 6097, 6099, 6105, 6107.]

